

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ABRAMS TRNG DEV MOD (GA5208)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 14.2        | 1.0     | 3.0     | 3.2     | 2.2     | 8.5     | 2.7     | 5.5     | 5.7     | 5.7     | 13.0        | 64.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 14.2        | 1.0     | 3.0     | 3.2     | 2.2     | 8.5     | 2.7     | 5.5     | 5.7     | 5.7     | 13.0        | 64.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 14.2        | 1.0     | 3.0     | 3.2     | 2.2     | 8.5     | 2.7     | 5.5     | 5.7     | 5.7     | 13.0        | 64.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** Funding provided will accomplish modifications to Abrams Training Devices required as a result of changes to the Abrams tanks or tank training requirements. These changes are hardware and software modifications to existing equipment to keep simulators abreast of developments in the Abrams Tank System.

**JUSTIFICATION:** The program reflected here-in is structured to meet needs validated by the Abrams user community. Degradation of tank training will occur if these modifications are delayed or deleted. The intended sites for the Conduct of Fire Trainer (COFT) M60A3 to M1 Conversions are for the National Guard units. The average expected gunner and commander throughput per year for the modified COFT is 3,016. The Conduct of Fire Trainer (COFT) M1 to M1A1, Optical Improvement (OIP) and Armament Enhancement Initiative (AEI) modifications are for units at FORSCOM, USAREUR, TRADOC, and National Guard.

| Exhibit P-40M Budget Item Justification Sheet  |                |              |         |         |         |                                |         | Date  |         |      |       |
|--|----------------|--------------|---------|---------|---------|--------------------------------|---------|---|---------|------|-------|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                |              |         |         |         |                                |         | P-1 Item Nomenclature<br>ABRAMS TRNG DEV MOD (GA5208) |         |      |       |
| Program Elements for Code B Items  |                |              |         | Code    |         | Other Related Program Elements |         |   |         |      |       |
| Description  |                | Fiscal Years |         |         |         |                                |         |   |         |      |       |
| OSIP NO.   | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000                        | FY 2001 | FY 2002   | FY 2003 | TC   | Total |
| M60A3 to M1 Conversion Kits  |                |              |         |         |         |                                |         |   |         |      |       |
| 1-03-05-4430   | Operational    | 5.4          | 0.0     | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0   | 0.0     | 0.0  | 5.4   |
| OIP Modification to M1A1 COFTs   |                |              |         |         |         |                                |         |   |         |      |       |
| 1-90-05-7877   | Operational    | 2.1          | 0.0     | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0   | 0.0     | 0.0  | 2.1   |
| AEI  |                |              |         |         |         |                                |         |   |         |      |       |
| 1-93-05-4452   | Operational    | 1.7          | 0.0     | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0   | 0.0     | 0.0  | 1.7   |
| M1 to M1A1 Modification Kits   |                |              |         |         |         |                                |         |   |         |      |       |
| 1-92-06-4419   | Operational    | 2.2          | 0.4     | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0   | 0.0     | 0.0  | 2.6   |
| Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost  |                |              |         |         |         |                                |         |   |         |      |       |
| 1-97-05-4526   | Operational    | 0.0          | 2.8     | 2.2     | 4.1     | 0.8                            | 0.8     | 0.8   | 0.8     | 4.3  | 16.6  |
| AGTS/SEP Mod   |                |              |         |         |         |                                |         |   |         |      |       |
| 1-97-05-4527   | Operational    | 0.0          | 0.0     | 0.0     | 0.0     | 0.0                            | 0.6     | 2.4   | 2.4     | 6.0  | 11.4  |
| Tank Driver Trainer Mod (M1A2 SEP Upgrade)   |                |              |         |         |         |                                |         |   |         |      |       |
| 1-97-05-4528   | Operational    | 0.0          | 0.0     | 0.0     | 4.2     | 1.4                            | 0.0     | 0.0   | 0.5     | 0.0  | 6.1   |
| Close Combat Tactical Trainer (CCTT)/SEP Mod   |                |              |         |         |         |                                |         |   |         |      |       |
| 1-97-05-4529   | Operational    | 0.0          | 0.0     | 0.0     | 0.0     | 0.2                            | 0.9     | 2.5   | 2.0     | 2.7  | 8.3   |
| Maintenance Training System (MTS) SEP Mod  |                |              |         |         |         |                                |         |   |         |      |       |
| 1-97-05-4530   | Operational    | 0.0          | 0.0     | 0.0     | 0.2     | 0.3                            | 3.2     | 0.0   | 0.0     | 0.0  | 3.7   |
| Totals   |                | 11.4         | 3.2     | 2.2     | 8.5     | 2.7                            | 5.5     | 5.7   | 5.7     | 13.0 | 57.9  |
| FY96 & prior does not include 6.8 of FY93 program dollars for mod that has been completed.                       |                |              |         |         |         |                                |         |   |         |      |       |

| INDIVIDUAL MODIFICATION  |         |   |   |   |         |   |   |   |         | Date           |   | February 1998 |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---------|---|---|---|---------|---|---|---|---------|----------------|---|---------------|---------|---|---------------------|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----------------|---|---|---|---|---|---------------|----|---|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|----------------|----|--|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: M60A3 to M1 Conversion Kits 1-03-05-4430   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M60A3 COFTs  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&amp;S costs associated with ammunition consumption. The COFT is configured to the tank system it supports.</p> <p>In support of the Abrams fielding schedule, the conversion of M60A3 COFTs to M1 COFTs is required to meet the Army's new force structure. The structure has changed to make the M60 tank and training devices obsolete. This situation establishes an urgent requirement to convert the M60A3 COFTs to M1 configuration.</p> <p>Without this modification, one of the following most likely will occur: 1) Negative training results from using outdated COFTs; 2) In lieu of using the outdated COFTs, units do little or no gunnery training; or 3) Units increase training with the tank and consumption of full caliber ammunition (which is more costly and ultimately defeats the primary purpose of the COI).</p>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |         |   |   |   |         |   |   |   |         | <u>PLANNED</u> |   |               |         |   | <u>ACCOMPLISHED</u> |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contractor Test and Evaluation:  |         |   |   |   |         |   |   |   |         | 4Q95           |   |               |         |   | 1Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |         |   |   |   |         |   |   |   |         | 4Q95           |   |               |         |   | 1Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td><b>Inputs</b></td> <td>16</td><td>4</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>13</td><td></td><td>2</td><td>1</td><td>4</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2  | 3              | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 16 | 4 |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  | <b>Outputs</b> | 13 |  | 2 | 1 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                |   |               | FY 2000 |   |                     |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Totals</b>  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  | 16      | 4 |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   | 13      |   | 2 | 1 | 4       |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>20</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>20</td> </tr> </tbody> </table>   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   | 20 | <b>Outputs</b> |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  | 20 |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                |   |               | FY 2005 |   |                     |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   | 20    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   | 20    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 12 Months  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates: FY 1997 FY 1998 FY 1999  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date: FY 1997 FY 1998 FY 1999   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M60A3 to M1 Conversion Kits 1-03-05-4430

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 20                   | 3.8 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 20    | 3.8 |     |
| Installation Kits, Nonrecurring |                      | 1.6 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.6 |
| Equipment                       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      | 5.4 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 5.4 |

| INDIVIDUAL MODIFICATION  |  |            |   |    |    |                          |    |    |    | Date           |   | February 1998 |   |                      |                     |   |   |           |   |        |   |
|--|--|------------|---|----|----|--------------------------|----|----|----|----------------|---|---------------|---|----------------------|---------------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: OIP Modification to M1A1 COFTs 1-90-05-7877  |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A1 COFTs   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>This modification is required because the tank's optics now include filters to protect the crew from eye damage resulting from exposure to lasers. To accommodate the improved optics, a new switch, which induces the eye safe laser filters, has been added and the switch used to change the gunner's sight from high to low power has been redesigned and relocated. Training with the Conduct of Fire Trainers (COFTs) enable the gunners and commanders to quickly find and use the correct switches by touch. |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
|  |  |            |   |    |    |                          |    |    |    | <u>PLANNED</u> |   |               |   |                      | <u>ACCOMPLISHED</u> |   |   |           |   |        |   |
| Contractor Test and Evaluation:  |  |            |   |    |    |                          |    |    |    | 1Q96           |   |               |   |                      | 1Q96                |   |   |           |   |        |   |
| Initial Operational Test and Evaluation:   |  |            |   |    |    |                          |    |    |    | 2Q96           |   |               |   |                      | 3Q96                |   |   |           |   |        |   |
| Installation Schedule:   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| Pr Yr  |  | FY 1997    |   |    |    | FY 1998                  |    |    |    | FY 1999        |   |               |   | FY 2000              |                     |   |   | FY 2001   |   |        |   |
| Totals   |  | 1          | 2 | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>  |  | 20         |   |    | 20 | 20                       | 20 | 20 |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| <b>Outputs</b>   |  |            |   | 20 | 20 | 10                       | 10 | 20 | 20 |                |   |               |   |                      |                     |   |   |           |   |        |   |
|  |  | FY 2002    |   |    |    | FY 2003                  |    |    |    | FY 2004        |   |               |   | FY 2005              |                     |   |   | To        |   | Totals |   |
|  |  | 1          | 2 | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>  |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| <b>Outputs</b>   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
|  |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   | 100       |   | 100    |   |
| METHOD OF IMPLEMENTATION:  |  | Contractor |   |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 9 Months       |   |               |   | PRODUCTION LEADTIME: |                     |   |   | 18 Months |   |        |   |
| Contract Dates:  |  | FY 1997    |   |    |    | FY 1998                  |    |    |    | FY 1999        |   |               |   |                      |                     |   |   |           |   |        |   |
| Delivery Date:   |  | FY 1997    |   |    |    | FY 1998                  |    |    |    | FY 1999        |   |               |   |                      |                     |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): OIP Modification to M1A1 COFTs 1-90-05-7877

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 100                  | 1.5 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 100   | 1.5 |     |
| Installation Kits, Nonrecurring |                      | 0.6 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.6 |
| Equipment                       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      | 2.1 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 2.1 |

| INDIVIDUAL MODIFICATION  |  |            |   |   |   |                          |   |   |   | Date                |   | February 1998 |   |                      |      |   |   |             |   |        |   |
|--|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---------------|---|----------------------|------|---|---|-------------|---|--------|---|
| MODIFICATION TITLE: AEI 1-93-05-4452   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |      |   |   |             |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A1 COFTs   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |      |   |   |             |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Armament Enhancement Initiative (AEI), 120mm tank round modification is required to change the configuration of the M1A1 COFT to the latest configuration of the tank. Addition of new rounds causes switch changes and additional sight reticles in the tank. These changes affect training and can only be provided in the COFT. The COFT will require both hardware and software changes to provide this capability. A key benefit of training with the COFT is in training gunners and commanders on the capability of new rounds with special features without having to fire the actual rounds. Using the existing COFTs without this capability results in severe negative training. The COFT must maintain the same configuration as the tank system it supports.</p> |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |      |   |   |             |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |      |   |   |             |   |        |   |
| <u>PLANNED</u>   |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |               |   |                      |      |   |   |             |   |        |   |
| Contractor Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 1Q96                |   |               |   |                      | 1Q96 |   |   |             |   |        |   |
| Initial Operational Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 2Q96                |   |               |   |                      | 3Q96 |   |   |             |   |        |   |
| Installation Schedule:   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |      |   |   |             |   |        |   |
| Pr Yr  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 2000              |      |   |   | FY 2001     |   |        |   |
| Totals   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2    | 3 | 4 | 1           | 2 | 3      | 4 |
| <b>Inputs</b>  |  | 20         |   |   |   | 20 20 20                 |   |   |   | 20 20 20            |   |               |   | 20 20 20             |      |   |   | 20 20 20    |   |        |   |
| <b>Outputs</b>   |  | 20 20      |   |   |   | 10 10 20 20              |   |   |   | 10 10 20 20         |   |               |   | 10 10 20 20          |      |   |   | 10 10 20 20 |   |        |   |
| Pr Yr  |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |               |   | FY 2005              |      |   |   | To          |   | Totals |   |
| Totals   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2    | 3 | 4 | Complete    |   | 100    |   |
| <b>Inputs</b>  |  | 100        |   |   |   | 100                      |   |   |   | 100                 |   |               |   | 100                  |      |   |   | 100         |   | 100    |   |
| <b>Outputs</b>   |  | 100        |   |   |   | 100                      |   |   |   | 100                 |   |               |   | 100                  |      |   |   | 100         |   | 100    |   |
| METHOD OF IMPLEMENTATION:  |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 9 Months            |   |               |   | PRODUCTION LEADTIME: |      |   |   | 18 Months   |   |        |   |
| Contract Dates:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 1999              |      |   |   |             |   |        |   |
| Delivery Date:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 1999              |      |   |   |             |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): AEI 1-93-05-4452

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 100                  | 1.2 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 100   | 1.2 |     |
| Installation Kits, Nonrecurring |                      | 0.5 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.5 |
| Equipment                       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      | 1.7 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.7 |



| INDIVIDUAL MODIFICATION   |         |   |   |   |         |   |   |   |         | Date                |   | February 1998 |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|---|---------|---|---|---|---------|---|---|---|---------|---------------------|---|---------------|---------|---|---|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----------------|---|---|---|---|---|---------------|----|--|--|--|--|---|--|---|--|---|---|---|---|----|---|---|--|--|--|--|----------------|----|--|--|--|---|---|---|--|---|--|---|---|---|---|---|---|--|--|--|--|
| MODIFICATION TITLE: M1 to M1A1 Modification Kits 1-92-06-4419   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 COFTs  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <p>The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&amp;S costs associated with ammunition consumption. The COFT is configured to the tank system it supports.</p> <p>In support of the Abrams fielding schedule, the M1 to M1A1 COFT modification is required to meet the Army's new force structure. All active army divisions, as well as selected National Guard units receiving the M1A1 tank have or will receive the modification. Additionally, the Armor School requires all M1A1 ICOFTs (four COFT crew stations), except for one standard M1 ICOFT and one linked M1 ICOFT used to provide Reserve Component training, be modified (hardware and software) to support basic and advance training of gunners and commanders. This situation establishes a requirement to upgrade the Armor School's M1 ICOFTs to the M1A1 capability.</p>  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <u>PLANNED</u>  |         |   |   |   |         |   |   |   |         | <u>ACCOMPLISHED</u> |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Contractor Test and Evaluation:   |         |   |   |   |         |   |   |   |         | N/A                 |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Initial Operational Test and Evaluation:  |         |   |   |   |         |   |   |   |         | N/A                 |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Installation Schedule:  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td><b>Inputs</b></td> <td>19</td><td></td><td></td><td></td> <td></td><td>4</td><td></td><td>4</td> <td></td><td>4</td><td>2</td><td>5</td> <td>3</td><td>8</td><td>2</td><td>2</td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>16</td><td></td><td></td><td></td> <td>1</td><td>1</td><td>5</td><td></td> <td>4</td><td></td><td>4</td><td>2</td> <td>6</td><td>4</td><td>8</td><td>2</td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2  | 3              | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 19 |  |  |  |  | 4 |  | 4 |  | 4 | 2 | 5 | 3 | 8  | 2 | 2 |  |  |  |  | <b>Outputs</b> | 16 |  |  |  | 1 | 1 | 5 |  | 4 |  | 4 | 2 | 6 | 4 | 8 | 2 |  |  |  |  |
| Pr Yr   | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                     |   |               | FY 2000 |   |   |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4             | 1       | 2 | 3 | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Totals</b>   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4             | 1       | 2 | 3 | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Inputs</b>   | 19      |   |   |   |         | 4 |   | 4 |         | 4                   | 2 | 5             | 3       | 8 | 2 | 2 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Outputs</b>  | 16      |   |   |   | 1       | 1 | 5 |   | 4       |                     | 4 | 2             | 6       | 4 | 8 | 2 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>53</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>53</td> </tr> </tbody> </table>   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   | 53 | <b>Outputs</b> |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   | 53 |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|   | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                     |   |               | FY 2005 |   |   |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4             | 1       | 2 | 3 | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Inputs</b>   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   | 53    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Outputs</b>  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   | 53    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 24 Months   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Contract Dates: FY 1997 Oct 97 FY 1998 FY 1999  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Delivery Date: FY 1997 Oct 99 FY 1998 FY 1999   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M1 to M1A1 Modification Kits 1-92-06-4419

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 48                   | 1.2 | 5       | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 53    | 1.6 |     |
| Installation Kits, Nonrecurring |                      | 1.0 |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.0 |
| Equipment                       |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      | 2.2 |         | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 2.6 |

| INDIVIDUAL MODIFICATION   |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   | Date          |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
|---|---------|---|---|---|---------|---|---|---|---------|---------------------|---|---|---------|---|---|---------------|----------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--|--|--|--|--|--|---|--|--|--|--|--|---|---|--|--|--|--|---|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|---|---|--|--|---|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|----|--------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--|---------------|--|---|--|--|--|---|--|--|--|--|--|--|--|--|--|--|----|----|----------------|---|--|--|---|---|--|--|---|---|--|--|--|--|--|--|--|----|----|
|   |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   | February 1998 |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| MODIFICATION TITLE: Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost 1-97-05-4526  |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| MODELS OF SYSTEMS AFFECTED: M1 and M1A1 COFTs   |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| DESCRIPTION / JUSTIFICATION:<br><p>The Image Generator (IG) and computer subsystems that are presently being used in the COFTs are approaching obsolescence. It is becoming more difficult to obtain parts for these IGs since they are of the early 1980's design. Sustainability is becoming a major issue as repair and replacement parts are becoming more expensive or entirely not available on the commercial market. Likewise, the software designed to run on these components is also difficult to sustain. The goal is to obtain a replacement IG and computer that will provide for cheaper and easier software changes and more cost effective parts and maintenance. This will position the COFT fleet to support tank units and institutions beyond the year 2000.</p>   |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| <u>PLANNED</u>  |         |   |   |   |         |   |   |   |         | <u>ACCOMPLISHED</u> |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| Contractor Test and Evaluation:   |         |   |   |   |         |   |   |   |         | 4Q99                |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| Initial Operational Test and Evaluation:  |         |   |   |   |         |   |   |   |         | 1Q00                |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| Installation Schedule:  |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td>1</td><td></td> <td></td><td></td><td></td><td></td> <td>9</td><td>5</td><td></td><td></td> <td></td><td></td><td>4</td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>1</td><td></td><td>9</td><td>2</td> <td>3</td><td></td><td></td><td>2</td> </tr> </tbody> </table><br><table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th>To</th> <th>Totals</th> </tr> <tr> <th></th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th> <th></th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td>4</td><td></td><td></td> <td></td><td>4</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>22</td> <td>49</td> </tr> <tr> <td><b>Outputs</b></td> <td>2</td><td></td><td></td><td>2</td> <td>2</td><td></td><td></td><td>2</td> <td>2</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>22</td> <td>49</td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001 |  |  |  | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |  |  |  |  |  |  | 1 |  |  |  |  |  | 9 | 5 |  |  |  |  | 4 |  | <b>Outputs</b> |  |  |  |  |  |  |  |  |  |  |  |  | 1 |  | 9 | 2 | 3 |  |  | 2 |  | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To | Totals |  | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | Complete |  | <b>Inputs</b> |  | 4 |  |  |  | 4 |  |  |  |  |  |  |  |  |  |  | 22 | 49 | <b>Outputs</b> | 2 |  |  | 2 | 2 |  |  | 2 | 2 |  |  |  |  |  |  |  | 22 | 49 |
| Pr Yr   | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                     |   |   | FY 2000 |   |   |               | FY 2001  |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| Totals  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4 | 1       | 2 | 3 | 4             | 1        | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| <b>Inputs</b>   |         |   |   |   |         |   | 1 |   |         |                     |   |   | 9       | 5 |   |               |          |        | 4 |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| <b>Outputs</b>  |         |   |   |   |         |   |   |   |         |                     |   |   | 1       |   | 9 | 2             | 3        |        |   | 2     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
|   | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                     |   |   | FY 2005 |   |   |               | To       | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4 | 1       | 2 | 3 | 4             | Complete |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| <b>Inputs</b>   |         | 4 |   |   |         | 4 |   |   |         |                     |   |   |         |   |   |               | 22       | 49     |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| <b>Outputs</b>  | 2       |   |   | 2 | 2       |   |   | 2 | 2       |                     |   |   |         |   |   |               | 22       | 49     |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 18 Months   |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| Contract Dates: FY 1997 Mar 98 FY 1998 Mar 98 FY 1999 Mar 99  |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |
| Delivery Date: FY 1997 FY 1998 Sep 99 FY 1999 Sep 00  |         |   |   |   |         |   |   |   |         |                     |   |   |         |   |   |               |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |  |  |  |  |  |  |   |  |  |  |  |  |   |   |  |  |  |  |   |  |                |  |  |  |  |  |  |  |  |  |  |  |  |   |  |   |   |   |  |  |   |  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |    |        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |  |               |  |   |  |  |  |   |  |  |  |  |  |  |  |  |  |  |    |    |                |   |  |  |   |   |  |  |   |   |  |  |  |  |  |  |  |    |    |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost 1-97-05-4526

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |     |      |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|-----|-------|-----|------|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$  |      |
| RDT&E                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| PROCUREMENT                     |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Kit Quantity                    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Installation Kits               |                   |    |         |     | 1       | 0.1 | 9       | 1.6 | 5       | 0.8 | 4       | 0.8 | 4       | 0.8 | 4       | 0.8 | 22  | 4.3 | 49    | 9.2 |      |
| Installation Kits, Nonrecurring |                   |    |         | 2.8 |         | 2.1 |         | 2.5 |         |     |         |     |         |     |         |     |     |     |       |     | 7.4  |
| Equipment                       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Equipment, Nonrecurring         |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Engineering Change Orders       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Data                            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Training Equipment              |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Support Equipment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Other                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Interim Contractor Support      |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Installation of Hardware        |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| TC Equip-Kits                   |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Total Installment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Total Procurement Cos           |                   |    |         | 2.8 |         | 2.2 |         | 4.1 |         | 0.8 |         | 0.8 |         | 0.8 |         | 0.8 |     | 4.3 |       |     | 16.6 |

| INDIVIDUAL MODIFICATION   |  |            |   |   |   |                          |   |   |   | Date                |   | February 1998 |   |                      |   |   |   |           |   |        |   |
|---|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---------------|---|----------------------|---|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: AGTS/SEP Mod 1-97-05-4527   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. It is cheaper to modify existing training devices than to procure new ones. |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| <u>PLANNED</u>  |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |               |   |                      |   |   |   |           |   |        |   |
| Contractor Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 3Q03                |   |               |   |                      |   |   |   |           |   |        |   |
| Initial Operational Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 4Q03                |   |               |   |                      |   |   |   |           |   |        |   |
| Installation Schedule:  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| Pr Yr   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 2000              |   |   |   | FY 2001   |   |        |   |
| Totals  |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
|   |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |               |   | FY 2005              |   |   |   | To        |   | Totals |   |
|   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>   |  |            |   |   |   |                          | 2 |   |   |                     |   |               |   |                      |   |   |   | 12        |   | 14     |   |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   | 2                   |   |               |   |                      |   |   |   | 12        |   | 14     |   |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |               |   | PRODUCTION LEADTIME: |   |   |   | 18 Months |   |        |   |
| Contract Dates:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |   |        |   |
| Delivery Date:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): AGTS/SEP Mod 1-97-05-4527

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |     | TC  |     | TOTAL |    |     |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|-----|-----|-----|-------|----|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty | \$  | Qty   | \$ |     |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Data                            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    |         |    | 0.6     |    | 2.4     |    |         | 2.4 |     | 6.0 |       | 14 | 7.2 |

| INDIVIDUAL MODIFICATION  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   | Date          |   |           |   |        |   |
|--|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---|---|----------------------|---|---------------|---|-----------|---|--------|---|
|  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   | February 1998 |   |           |   |        |   |
| MODIFICATION TITLE: Tank Driver Trainer Mod (M1A2 SEP Upgrade) 1-97-05-4528  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |               |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A1 Tank Driver Trainer   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |               |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The Tank Driver Trainer (TDT) simulates actual tank performance for beginner and transitioning drivers. It provides a range of motion and simulated environments, terrain and situations which are difficult or impossible for the driver to experience in normal training or operations. The M1A2 driver's compartment and tasks are significantly different from the M1A1. This project upgrades existing M1A1 Tank Driver Trainers at the Armor School to match projected throughput of students as more M1A2s enter the field. |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |               |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |               |   |           |   |        |   |
| <u>PLANNED</u>   |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |   |   |                      |   |               |   |           |   |        |   |
| Contractor Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 3Q00                |   |   |   |                      |   |               |   |           |   |        |   |
| Initial Operational Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 4Q00                |   |   |   |                      |   |               |   |           |   |        |   |
| Installation Schedule:   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |               |   |           |   |        |   |
| Pr Yr  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | FY 2000              |   |               |   | FY 2001   |   |        |   |
| Totals   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3             | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   | 1 |   |                      |   | 1             |   |           |   |        |   |
| <b>Outputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |               |   |           |   |        | 1 |
|  |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |   |   | FY 2005              |   |               |   | To        |   | Totals |   |
|  |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3             | 4 | Complete  |   |        |   |
| <b>Inputs</b>  |  |            |   |   |   |                          |   | 1 |   |                     |   |   |   |                      |   |               |   |           |   |        | 3 |
| <b>Outputs</b>   |  |            |   |   | 1 |                          |   |   |   |                     |   |   | 1 |                      |   |               |   |           |   |        | 3 |
| METHOD OF IMPLEMENTATION:  |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |   |   | PRODUCTION LEADTIME: |   |               |   | 24 Months |   |        |   |
| Contract Dates:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | Mar 99               |   |               |   |           |   |        |   |
| Delivery Date:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | Sep 01               |   |               |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Tank Driver Trainer Mod (M1A2 SEP Upgrade) 1-97-05-4528

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |     | TC  |    | TOTAL |     |     |
|---|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|---------|-----|-----|----|-------|-----|-----|
|   | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty | \$ | Qty   | \$  |     |
| RDT&E                                     |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| PROCUREMENT                               |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Kit Quantity                              |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Installation Kits                         |                   |    |         |    |         |    | 1       | 1.5 | 1       | 1.4 |         |    |         |    | 1       | 0.5 |     |    | 3     | 3.4 |     |
| Installation Kits, Nonrecurring Equipment |                   |    |         |    |         |    |         | 2.7 |         |     |         |    |         |    |         |     |     |    |       |     | 2.7 |
| Equipment, Nonrecurring                   |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Engineering Change Orders                 |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Data                                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Training Equipment                        |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Support Equipment                         |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Other                                     |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Interim Contractor Support                |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Installation of Hardware                  |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits              |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1997 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1998 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1999 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2000 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2001 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2002 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2003 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| TC Equip-Kits                             |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Total Installment                         |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Total Procurement Cos                     |                   |    |         |    |         |    |         | 4.2 |         | 1.4 |         |    |         |    |         | 0.5 |     |    |       |     | 6.1 |



| INDIVIDUAL MODIFICATION   |  |            |   |    |   |                          |   |   |   | Date                |   | February 1998 |   |                      |   |   |   |           |   |        |   |
|---|--|------------|---|----|---|--------------------------|---|---|---|---------------------|---|---------------|---|----------------------|---|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: Close Combat Tactical Trainer (CCTT)/SEP Mod 1-97-05-4529   |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: Close Combat Tactical Trainer (CCTT)  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>This funding will modify existing Close Combat Tactical Trainer modules to represent the most recent SEP changes to the M1A2. |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| <u>PLANNED</u>  |  |            |   |    |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |               |   |                      |   |   |   |           |   |        |   |
| Contractor Test and Evaluation:   |  |            |   |    |   |                          |   |   |   | 3Q02                |   |               |   |                      |   |   |   |           |   |        |   |
| Initial Operational Test and Evaluation:  |  |            |   |    |   |                          |   |   |   | 4Q02                |   |               |   |                      |   |   |   |           |   |        |   |
| Installation Schedule:  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| Pr Yr   |  | FY 1997    |   |    |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 2000              |   |   |   | FY 2001   |   |        |   |
| Totals  |  | 1          | 2 | 3  | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>   |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
| <b>Outputs</b>  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |   |
|   |  | FY 2002    |   |    |   | FY 2003                  |   |   |   | FY 2004             |   |               |   | FY 2005              |   |   |   | To        |   | Totals |   |
|   |  | 1          | 2 | 3  | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>   |  | 14         |   |    |   | 8                        |   |   |   |                     |   |               |   |                      |   |   |   | 12        |   | 34     |   |
| <b>Outputs</b>  |  |            |   | 14 |   |                          |   | 8 |   |                     |   |               |   |                      |   |   |   | 12        |   | 34     |   |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |    |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |               |   | PRODUCTION LEADTIME: |   |   |   | 15 Months |   |        |   |
| Contract Dates:   |  | FY 1997    |   |    |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |   |        |   |
| Delivery Date:  |  | FY 1997    |   |    |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Close Combat Tactical Trainer (CCTT)/SEP Mod 1-97-05-4529

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |     |
|---------------------------------|----------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-----|
|                                 | Qty                  | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |     |
| RDT&E                           |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| PROCUREMENT                     |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Kit Quantity                    |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Installation Kits               |                      |    |         |    |         |    |         |    |         |    |         | 14 | 2.5     | 8  | 2.0     | 12 | 2.7 | 34 | 7.2   |    |     |
| Installation Kits, Nonrecurring |                      |    |         |    |         |    |         |    | 0.2     |    | 0.9     |    |         |    |         |    |     |    |       |    | 1.1 |
| Equipment                       |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Equipment, Nonrecurring         |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Engineering Change Orders       |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Data                            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Training Equipment              |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Support Equipment               |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Other                           |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Interim Contractor Support      |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Installation of Hardware        |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 1997 Eqpt -- Kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 1998 Eqpt -- Kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 1999 Eqpt -- Kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 2000 Eqpt -- kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 2001 Eqpt -- kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 2002 Eqpt -- kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| FY 2003 Eqpt -- kits            |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| TC Equip-Kits                   |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Total Installment               |                      |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |     |
| Total Procurement Cos           |                      |    |         |    |         |    |         |    | 0.2     |    | 0.9     |    | 2.5     |    | 2.0     |    | 2.7 |    |       |    | 8.3 |

|   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |    |
|---|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---------------|---|----------------------|---|---|---|-----------|---|--------|----|
| INDIVIDUAL MODIFICATION   |  |            |   |   |   |                          |   |   |   | Date                |   | February 1998 |   |                      |   |   |   |           |   |        |    |
| MODIFICATION TITLE: Maintenance Training System (MTS) SEP Mod 1-97-05-4530  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |    |
| MODELS OF SYSTEMS AFFECTED: M1A2 Maintenance Trainers   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |    |
| DESCRIPTION / JUSTIFICATION:<br>This funding will modify existing M1A2 Maintenance Training Systems to represent the most recent SEP changes to the M1A2. |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |    |
| <u>PLANNED</u>  |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |               |   |                      |   |   |   |           |   |        |    |
| Contractor Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 3Q01                |   |               |   |                      |   |   |   |           |   |        |    |
| Initial Operational Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 4Q01                |   |               |   |                      |   |   |   |           |   |        |    |
| Installation Schedule:  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        |    |
| Pr Yr   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 2000              |   |   |   | FY 2001   |   |        |    |
| Totals  |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | 1         | 2 | 3      | 4  |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   | 21     |    |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        | 21 |
|   |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |               |   | FY 2005              |   |   |   | To        |   | Totals |    |
|   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | Complete  |   |        |    |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        | 21 |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |   |        | 21 |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |               |   | PRODUCTION LEADTIME: |   |   |   | 15 Months |   |        |    |
| Contract Dates:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |   |        |    |
| Delivery Date:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |   |        |    |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Maintenance Training System (MTS) SEP Mod 1-97-05-4530

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Installation Kits               |                      |    |         |    |         |    |         |     |         |     | 21      | 2.6 |         |    |         |    |     |    | 21    | 2.6 |     |
| Installation Kits, Nonrecurring |                      |    |         |    |         |    | 0.2     |     | 0.3     |     |         |     |         |    |         |    |     |    |       |     | 1.1 |
| Equipment                       |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Data                            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Other                           |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      |    |         |    |         |    |         | 0.2 |         | 0.3 |         | 3.2 |         |    |         |    |     |    |       |     | 3.7 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: CARRIER, MOD (GB1930)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 566.7       | 53.1    | 43.7    | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3       | 1890.9     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 566.7       | 53.1    | 43.7    | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3       | 1890.9     |
| Initial Spares   | 3.5         |         |         |         |         |         |         |         |         |         |             | 3.5        |
| Total Proc Cost  | 570.2       | 53.1    | 43.7    | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3       | 1894.4     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M113 Family of Vehicles (FOV) consists of over 18,000 vehicles, 16 different variants/platforms, in service in U.S. Army units. The M113 FOV is almost one half of the tracked combat vehicle fleet in a mechanized infantry or armor heavy division. The family provides transport for troops, anti-tank, fire direction, smoke, mortar, cargo carrier and command & control systems. The fleet is required for the next 20 plus years and must be modified to increase mobility, survivability and to install operational enhancements. Operation Desert Storm (ODS) highlighted the need to improve the mobility and survivability, chemical protection, driver's night vision, fuel system for Command Post Auxiliary Power Units (APU) for the fleet.

**JUSTIFICATION:**

1. **BLOCK 1 (A3) MODIFICATION:** Provides improvements to enhance mobility and crew survivability. Provides a new 275 Horse Power (HP) turbocharged engine coupled with a new transmission. This powertrain replaces less reliable components and results in reduced O&S costs while increasing mobility to keep up with the M1 and BFVS fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. The intent is to convert vehicles at depot or contractor facilities to the A3 configuration, in the Department of the Army Master Priority List (DAMPL) sequence.

2. **CREW CHEMICAL PROTECTION:** Provides mounting provisions and hardware and the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes blowers, filters, and air line heaters for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Prior to FY98 only mounting provisions were installed during vehicle conversions to the A3 configuration. The intent is to install the complete system during future A3 conversions. Vehicle conversions will be done in Department of the Army Master Priority List (DAMPL) sequence.

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |  |
|--|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | P-1 Item Nomenclature<br>CARRIER, MOD (GB1930) |
|--|--|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

|             |              |  |  |  |  |  |  |  |  |  |  |
|-------------|--------------|--|--|--|--|--|--|--|--|--|--|
| Description | Fiscal Years |  |  |  |  |  |  |  |  |  |  |
|-------------|--------------|--|--|--|--|--|--|--|--|--|--|

| OSIP NO.                 | Classification  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC    | Total   |
|--------------------------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|-------|---------|
| Crew Chemical Protection |                 |         |         |         |         |         |         |         |         |       |         |
| 1-91-05-4311             | Oper Capability | 0.5     | 1.0     | 1.0     | 0.9     | 0.7     | 0.7     | 1.0     | 1.0     | 21.2  | 28.0    |
| Block 1                  |                 |         |         |         |         |         |         |         |         |       |         |
| 1-84-05-4026             | Oper Capability | 276.9   | 43.7    | 38.4    | 53.6    | 58.7    | 52.9    | 72.6    | 85.1    | 795.1 | 1,477.0 |
| Totals                   |                 | 277.4   | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3 | 1,505.0 |

| INDIVIDUAL MODIFICATION   |        |                  |    |    |    |                          |    |    |    | Date       |    | February 1998 |    |                      |    |    |    |            |        |    |    |
|---|--------|------------------|----|----|----|--------------------------|----|----|----|------------|----|---------------|----|----------------------|----|----|----|------------|--------|----|----|
| MODIFICATION TITLE: Crew Chemical Protection 1-91-05-4311   |        |                  |    |    |    |                          |    |    |    |            |    |               |    |                      |    |    |    |            |        |    |    |
| MODELS OF SYSTEMS AFFECTED: M113A3, M577A3, M1068A3   |        |                  |    |    |    |                          |    |    |    |            |    |               |    |                      |    |    |    |            |        |    |    |
| DESCRIPTION / JUSTIFICATION:<br>Provides mounting provisions and hardware and the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system include blowers, filters, air line heaters and hoses for use with crew issued vent face masks. The installed system permits vehicle operation in an NBC environment. Prior to FY 98 only mounting provisions were installed during vehicle conversions to the A3 configuration. The intent is to install complete system during future A3 conversions. Vehicle conversions to be done in the Department of the Army Master Priority List (DAMPL) sequence. |        |                  |    |    |    |                          |    |    |    |            |    |               |    |                      |    |    |    |            |        |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:<br><p style="text-align: center;"><u>PLANNED</u>      <u>ACCOMPLISHED</u></p> TDP Available: February 92   |        |                  |    |    |    |                          |    |    |    |            |    |               |    |                      |    |    |    |            |        |    |    |
| Installation Schedule:  |        |                  |    |    |    |                          |    |    |    |            |    |               |    |                      |    |    |    |            |        |    |    |
|   | Pr Yr  | FY 1997          |    |    |    | FY 1998                  |    |    |    | FY 1999    |    |               |    | FY 2000              |    |    |    | FY 2001    |        |    |    |
|   | Totals | 1                | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1          | 2  | 3             | 4  | 1                    | 2  | 3  | 4  | 1          | 2      | 3  | 4  |
| <b>Inputs</b>   |        |                  |    |    |    |                          |    |    |    | 60         | 60 | 60            | 60 | 54                   | 54 | 54 | 54 | 45         | 45     | 45 | 45 |
| <b>Outputs</b>  |        |                  |    |    |    |                          |    |    |    |            | 60 | 60            | 60 | 60                   | 54 | 54 | 54 | 54         | 45     | 45 | 45 |
|   |        | FY 2002          |    |    |    | FY 2003                  |    |    |    | FY 2004    |    |               |    | FY 2005              |    |    |    | To         | Totals |    |    |
|   |        | 1                | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1          | 2  | 3             | 4  | 1                    | 2  | 3  | 4  | Complete   |        |    |    |
| <b>Inputs</b>   |        | 50               | 51 | 51 | 51 | 60                       | 60 | 60 | 60 | 60         | 60 | 60            | 60 |                      |    |    |    | 3391       | 4711   |    |    |
| <b>Outputs</b>  |        | 46               | 50 | 51 | 51 | 51                       | 60 | 60 | 60 | 60         | 60 | 60            | 60 | 60                   |    |    |    | 3391       | 4711   |    |    |
| METHOD OF IMPLEMENTATION:   |        | Depot/Contractor |    |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 3 Months   |    |               |    | PRODUCTION LEADTIME: |    |    |    | 10 Months  |        |    |    |
| Contract Dates:   |        | FY 1997          |    |    |    | FY 1998                  |    |    |    | January 98 |    |               |    | FY 1999              |    |    |    | January 99 |        |    |    |
| Delivery Date:  |        | FY 1997          |    |    |    | FY 1998                  |    |    |    | October 98 |    |               |    | FY 1999              |    |    |    | October 99 |        |    |    |

| INDIVIDUAL MODIFICATION                   |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | Date                                  |      | February 1998 |      |
|---|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------------------------------------|------|---------------|------|
| MODIFICATION TITLE (Cont):                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | Crew Chemical Protection 1-91-05-4311 |      |               |      |
| FINANCIAL PLAN: (\$ in Millions)          |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC                                    |      | TOTAL         |      |
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty                                   | \$   | Qty           | \$   |
| RDT&E                                     |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| PROCUREMENT                               |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Kit Quantity                              |                   |     |         |     | 240     |     | 216     |     | 181     |     | 203     |     | 240     |     | 240     |     | 3391                                  |      | 4711          |      |
| Installation Kits                         |                   |     |         |     |         | 0.6 |         | 0.6 |         | 0.5 |         | 0.6 |         | 0.8 |         | 0.8 |                                       | 16.9 |               | 20.8 |
| Installation Kits, Nonrecurring Equipment |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Equipment, Nonrecurring                   |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Engineering Change Orders                 |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Data                                      |                   | 0.5 |         | 1.0 |         | 0.4 |         |     |         |     |         |     |         |     |         |     |                                       |      |               | 1.9  |
| Training Equipment                        |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Support Equipment                         |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Other                                     |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Interim Contractor Support                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| Installation of Hardware                  |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| FY 1996 & Prior Eqpt -- Kits              |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| FY 1997 Eqpt -- Kits                      |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |
| FY 1998 Eqpt -- Kits                      |                   |     |         |     |         |     | 240     | 0.3 |         |     |         |     |         |     |         |     |                                       |      | 240           | 0.3  |
| FY 1999 Eqpt -- Kits                      |                   |     |         |     |         |     |         |     | 216     | 0.2 |         |     |         |     |         |     |                                       |      | 216           | 0.2  |
| FY 2000 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         | 181 | 0.1     |     |         |     |         |     |                                       |      | 181           | 0.1  |
| FY 2001 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         |     | 203     | 0.2 |         |     |         |     |                                       |      | 203           | 0.2  |
| FY 2002 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         |     |         | 240 | 0.2     |     |         |     |                                       |      | 240           | 0.2  |
| FY 2003 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         |     |         |     | 240     | 0.2 |         |     | 240                                   | 0.2  | 240           | 0.2  |
| TC Equip-Kits                             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | 3391                                  | 4.1  | 3391          | 4.1  |
| Total Installment                         |                   |     |         |     |         |     | 240     | 0.3 | 216     | 0.2 | 181     | 0.1 | 203     | 0.2 | 240     | 0.2 | 3631                                  | 4.3  | 4711          | 5.3  |
| Total Procurement Cos                     |                   | 0.5 |         | 1.0 |         | 1.0 |         | 0.9 |         | 0.7 |         | 0.7 |         | 1.0 |         | 1.0 |                                       | 21.2 |               | 28.0 |



| INDIVIDUAL MODIFICATION  |        |                  |    |    |    |                          |     |     |     | Date                |    | February 1998 |    |                      |    |    |    |           |        |    |    |
|--|--------|------------------|----|----|----|--------------------------|-----|-----|-----|---------------------|----|---------------|----|----------------------|----|----|----|-----------|--------|----|----|
| MODIFICATION TITLE: <b>Block 1 1-84-05-4026</b>  |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| MODELS OF SYSTEMS AFFECTED: M113A2, M577A2, M981, M1059, M1064, M1068, OSV, M58  |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| DESCRIPTION / JUSTIFICATION:<br><p>Provides improvements to enhance mobility and crew survivability. Provides a new 275 Horse Power (HP) turbocharged engine coupled with a new transmission. This powertrain replaces less reliable components and results in reduced O&amp;S costs while increasing mobility to keep up with the M1 and BFVS fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. The intent is to convert vehicles at depot or contractor facilities to the A3 configuration, in the Department of the Army Master Priority List (DAMPL) sequence.</p> |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| <u>PLANNED</u>   |        |                  |    |    |    |                          |     |     |     | <u>ACCOMPLISHED</u> |    |               |    |                      |    |    |    |           |        |    |    |
| IPR Production Decision:   |        |                  |    |    |    |                          |     |     |     | May 86              |    |               |    |                      |    |    |    |           |        |    |    |
| TDP Available:   |        |                  |    |    |    |                          |     |     |     | June 86             |    |               |    |                      |    |    |    |           |        |    |    |
| Installation Schedule:   |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
|  | Pr Yr  | FY 1997          |    |    |    | FY 1998                  |     |     |     | FY 1999             |    |               |    | FY 2000              |    |    |    | FY 2001   |        |    |    |
|  | Totals | 1                | 2  | 3  | 4  | 1                        | 2   | 3   | 4   | 1                   | 2  | 3             | 4  | 1                    | 2  | 3  | 4  | 1         | 2      | 3  | 4  |
| <b>Inputs</b>  | 379    |                  |    | 40 | 91 | 154                      | 164 | 174 | 155 | 60                  | 60 | 60            | 60 | 54                   | 54 | 54 | 54 | 45        | 45     | 45 | 46 |
| <b>Outputs</b>   | 379    |                  |    |    | 97 | 134                      | 149 | 150 | 149 | 99                  | 60 | 60            | 60 | 60                   | 54 | 54 | 54 | 54        | 45     | 45 | 45 |
|  |        | FY 2002          |    |    |    | FY 2003                  |     |     |     | FY 2004             |    |               |    | FY 2005              |    |    |    | To        | Totals |    |    |
|  |        | 1                | 2  | 3  | 4  | 1                        | 2   | 3   | 4   | 1                   | 2  | 3             | 4  | 1                    | 2  | 3  | 4  | Complete  |        |    |    |
| <b>Inputs</b>  | 50     | 51               | 51 | 51 | 60 | 60                       | 60  | 60  | 60  | 60                  | 60 | 60            | 60 |                      |    |    |    | 2168      | 4645   |    |    |
| <b>Outputs</b>   | 46     | 50               | 51 | 51 | 51 | 60                       | 60  | 60  | 60  | 60                  | 60 | 60            | 60 | 60                   |    |    |    | 2168      | 4645   |    |    |
| METHOD OF IMPLEMENTATION:  |        | Depot/Contractor |    |    |    | ADMINISTRATIVE LEADTIME: |     |     |     | 3 Months            |    |               |    | PRODUCTION LEADTIME: |    |    |    | 10 Months |        |    |    |
| Contract Dates:  |        | FY 1997 March 97 |    |    |    | FY 1998 January 98       |     |     |     | FY 1999 January 99  |    |               |    |                      |    |    |    |           |        |    |    |
| Delivery Date:   |        | FY 1997 June 97  |    |    |    | FY 1998 October 98       |     |     |     | FY 1999 October 99  |    |               |    |                      |    |    |    |           |        |    |    |

| INDIVIDUAL MODIFICATION          |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | Date                 |       | February 1998 |        |
|----------------------------------|-------------------|-------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|----------------------|-------|---------------|--------|
| MODIFICATION TITLE (Cont):       |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | Block 1 1-84-05-4026 |       |               |        |
| FINANCIAL PLAN: (\$ in Millions) |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
|                                  | FY 1996 and Prior |       | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |      | FY 2001 |      | FY 2002 |      | FY 2003 |      | TC                   |       | TOTAL         |        |
|                                  | Qty               | \$    | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty                  | \$    | Qty           | \$     |
| RDT&E                            |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| PROCUREMENT                      |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Kit Quantity                     | 2030              |       | 304     |      | 240     |      | 216     |      | 181     |      | 203     |      | 240     |      | 240     |      | 2168                 |       | 5822          |        |
| Installation Kits                |                   | 223.4 |         | 31.2 |         | 25.9 |         | 21.1 |         | 22.6 |         | 25.4 |         | 35.8 |         | 36.3 |                      | 339.1 |               | 760.8  |
| Installation Kits, Nonrecurring  |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Equipment                        |                   | 3.4   |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               | 3.4    |
| Equipment, Nonrecurring          |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Engineering Change Orders        |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Data                             |                   | 40.2  |         | 2.0  |         | 2.3  |         | 3.6  |         | 4.3  |         | 4.4  |         | 4.6  |         | 5.0  |                      | 46.7  |               | 113.1  |
| Training Equipment               |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Support Equipment                |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Other                            |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Interim Contractor Support       |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Pre-Conversion                   |                   |       |         |      |         |      |         | 19.5 |         | 22.2 |         | 14.4 |         | 22.1 |         | 32.1 |                      | 290.0 |               | 400.3  |
| FDT                              |                   | 0.1   |         | 0.1  |         | 0.5  |         | 1.0  |         | 1.0  |         | 1.0  |         | 1.2  |         | 1.5  |                      | 14.0  |               | 20.4   |
| TPF                              |                   | 2.6   |         | 0.5  |         | 1.0  |         | 1.3  |         | 1.8  |         | 1.9  |         | 2.1  |         | 2.3  |                      | 21.5  |               | 35.0   |
| Installation of Hardware         |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| FY 1996 & Prior Eqpt -- Kits     | 379               | 7.2   | 474     | 9.9  |         |      |         |      |         |      |         |      |         |      |         |      |                      |       | 853           | 17.1   |
| FY 1997 Eqpt -- Kits             |                   |       |         |      | 304     | 8.7  |         |      |         |      |         |      |         |      |         |      |                      |       | 304           | 8.7    |
| FY 1998 Eqpt -- Kits             |                   |       |         |      |         |      | 240     | 7.1  |         |      |         |      |         |      |         |      |                      |       | 240           | 7.1    |
| FY 1999 Eqpt -- Kits             |                   |       |         |      |         |      |         |      | 216     | 6.8  |         |      |         |      |         |      |                      |       | 216           | 6.8    |
| FY 2000 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      | 181     | 5.8  |         |      |         |      |                      |       | 181           | 5.8    |
| FY 2001 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      |         |      | 203     | 6.8  |         |      |                      |       | 203           | 6.8    |
| FY 2002 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      |         |      |         |      | 240     | 7.9  |                      |       | 240           | 7.9    |
| FY 2003 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | 240                  | 7.9   | 240           | 7.9    |
| TC Equip-Kits                    |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | 2168                 | 75.9  | 2168          | 75.9   |
| Total Installment                | 379               | 7.2   | 474     | 9.9  | 304     | 8.7  | 240     | 7.1  | 216     | 6.8  | 181     | 5.8  | 203     | 6.8  | 240     | 7.9  | 2408                 | 83.8  | 4645          | 144.0  |
| Total Procurement Cos            |                   | 276.9 |         | 43.7 |         | 38.4 |         | 53.6 |         | 58.7 |         | 52.9 |         | 72.6 |         | 85.1 |                      | 795.1 |               | 1477.0 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: FIST VEHICLE (MOD) (GZ2300)

Program Elements for Code B Items: 0203735A  
 Code: B  
 Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         | 19      | 27      | 49      | 56      | 60      | 87      | 267         | 565        |
| Gross Cost       | 372.8       | 0.0     | 0.0     | 0.0     | 15.6    | 20.7    | 43.5    | 47.4    | 50.1    | 62.3    | 202.1       | 814.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 372.8       | 0.0     | 0.0     | 0.0     | 15.6    | 20.7    | 43.5    | 47.4    | 50.1    | 62.3    | 202.1       | 814.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 372.8       | 0.0     | 0.0     | 0.0     | 15.6    | 20.7    | 43.5    | 47.4    | 50.1    | 62.3    | 202.1       | 814.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         | .8      | .8      | .9      | .8      | .8      | .7      | .8          |            |

**DESCRIPTION:** The Bradley Fire Support Vehicle (BFIST) integrates Mission Equipment Packages into a Bradley Fighting Vehicle to support heavy maneuver force operations. The BFIST replaces the aging M981 Fire Support Vehicle for fire mission planning, support and execution for maneuver company commanders. The Fire Support Team is attached to a mechanized infantry or armor company and is primarily responsible for developing and executing fire support plans that enable success on the battlefield. The BFIST allows fire support operations to be performed on the battlefield in vehicles with the same signature, survivability, and mobility as other Bradley maneuver units.

**JUSTIFICATION:** The current Fire Support Vehicle M981 was unable to maintain the operational tempo of Bradley /Abrams equipped maneuver forces during Operation Desert Storm (ODS). Additionally, the M981 displayed a number of operational deficiencies and shortcomings remedied by the BFIST design. The BFIST provides synchronization of combined arms operations.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>FIST VEHICLE (MOD) (GZ2300) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| Hardware Cost                                     |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| 1. Vehicle Upgrade                                |  |  |              |      |  |              |      |                     | 10994        | 19   | 579                    | 10209        | 27   | 378      |
| 2. Pre-Mod Depot Maintenance                      |  |  |              |      |  |              |      |                     |              |      | 5969                   | 27           | 221  |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  |              |      |                     | <b>10994</b> |      |                        | <b>16178</b> |      |          |
| Non Recurring Production                          |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| 3. Engineering Contractor                         |  |  |              |      |  |              |      |                     | 2610         |      |                        | 1790         |      |          |
| 4. Engineering Government                         |  |  |              |      |  |              |      |                     | 418          |      |                        | 375          |      |          |
| 5. Program Management Administration              |  |  |              |      |  |              |      |                     | 239          |      |                        | 215          |      |          |
| 6. Reimbursable Matrix Support                    |  |  |              |      |  |              |      |                     | 896          |      |                        | 804          |      |          |
| 7. Fielding                                       |  |  |              |      |  |              |      |                     | 438          |      |                        | 320          |      |          |
| 8. Refurbish Test Vehicles                        |  |  |              |      |  |              |      |                     |              |      | 1038                   |              |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  |              |      |                     | <b>4601</b>  |      |                        | <b>4542</b>  |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  |              |      |                     | <b>15595</b> |      |                        | <b>20720</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
 Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature: FIST VEHICLE (MOD) (GZ2300)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location          | Contract Method and Type | Location of PCO                              | Award Date       | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|----------------------------------|--------------------------|--|------------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Vehicle Upgrade<br>FY 98<br>FY 99 | UDLP, York, PA<br>UDLP, York, PA | SS/FFP<br>SS/FFP         | USATACOM, Warren, MI<br>USATACOM, Warren, MI | Dec-97<br>Nov-98 | May-99<br>Jan-00       | 19<br>27 | 579<br>378      |                  |                  |                |

REMARKS:



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |       |                  |                     |                                |                              | P-1 Item Nomenclature: FIST VEHICLE (MOD) (GZ2300) |             |             |                 |              |              |              |             |  |             |             |             |                  |             |             |             | Date: February 1998   |             |             |             |             |             |             |             |
|---------------------------------------|-----------------|-------|------------------|---------------------|--------------------------------|------------------------------|--|-------------|-------------|-----------------|--------------|--------------|--------------|-------------|--|-------------|-------------|-------------|------------------|-------------|-------------|-------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| COST ELEMENTS                         | M<br>F<br>R     | FY    | S<br>E<br>R<br>V | PROC<br>QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT | Fiscal Year 00                                     |             |             |                 |              |              |              |             |  |             |             |             | Fiscal Year 01   |             |             |             | L<br>A<br>T<br>E<br>R |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              | Calendar Year 00                                   |             |             |                 |              |              |              |             |  |             |             |             | Calendar Year 01 |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              | O<br>C<br>T  | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N     | F<br>E<br>B  | M<br>A<br>R  | A<br>P<br>R  | M<br>A<br>Y | J<br>U<br>N  | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N |                       | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G |
| 1. Vehicle Upgrade                    |                 |       |                  |                     |                                |                              |  |             |             |                 |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1               | FY 98 | A                | 19                  | 7                              | 12                           | 4  | 4           | 4           |                 |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1               | FY 99 | A                | 27                  | 0                              | 27                           |  |             |             | 2               | 4            | 4            | 4            | 4           | 4  | 5           |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
| <b>Total</b>                          |                 |       |                  |                     |                                |                              | 4  | 4           | 4           | 2               | 4            | 4            | 4            | 4           | 4  | 5           |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              | O<br>C<br>T  | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N     | F<br>E<br>B  | M<br>A<br>R  | A<br>P<br>R  | M<br>A<br>Y | J<br>U<br>N  | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B           | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |
| M<br>F<br>R                           | NAME / LOCATION |       |                  |                     | PRODUCTION RATES               |                              |  | REACHED     | MFR Number  | ADMIN LEAD TIME |              |              | MFR          | TOTAL       | REMARKS  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     | MIN.                           | 1-8-5                        | MAX.   | D +         |             | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |             | * Production Rates To Be Determined:<br>Due to vehicles being new production.<br>UDLP is downsizing/reorganizing, and<br>designing a multi product approach to<br>production. When these initiatives are<br>settled, some useful Min/Max rates may<br>be possible. |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
| 1                                     | UDLP, York, PA  |       |                  |                     | *                              | *                            | *  |             | 1           | INITIAL         |              | 3            | 17           | 20          |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | REORDER         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | INITIAL         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | REORDER         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | INITIAL         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | REORDER         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | INITIAL         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | REORDER         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | INITIAL         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                 |       |                  |                     |                                |                              |  |             |             | REORDER         |              |              |              |             |  |             |             |             |                  |             |             |             |                       |             |             |             |             |             |             |             |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BFVS SERIES (MOD) (GZ2400)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 503.1       | 90.2    | 88.6    | 113.6   | 60.0    | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0         | 935.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 503.1       | 90.2    | 88.6    | 113.6   | 60.0    | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0         | 935.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 503.1       | 90.2    | 88.6    | 113.6   | 60.0    | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0         | 935.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The funds appropriated, budgeted, and programmed in this budget line will provide for the procurement and application of modification kits for the Bradley Fighting Vehicle. The Operation Desert Storm improvements are 6 ECPs which will correct deficiencies identified in Operation Desert Storm and include: Laser Range Finder, Position Navigation System, Equipment Restow Improvement, Combat Identification System, Drivers Vision Enhancer and Missile Countermeasure Device. The A1 to A2 conversion effort increases the vehicle survivability and brings the vehicle up to the current A2 configuration, with the addition of the High Survivability Kit and the 600HP power pack. Operational improvements are the Transmission Electronic Controller, the Armament Control Unit Pillow Block, the Vehicle Intercommunications System, and Armor Tiles. One safety mod, the A2 Card Retrofit, will prevent inadvertent TOW missile launch. The A2 ODS Applique(+) modification will integrate Bradley Fighting Vehicles with the Army's Applique computer system to improve situational awareness. Additionally, there is the Presidentially directed HALON Replacement Program. Most of these modifications will be applied concurrently in "blocks" to reduce application cost and inconvenience to the unit.

**JUSTIFICATION:** The programs in these P-Forms were initiated to meet requirements identified to correct deficiencies identified in Operation Desert Storm and to improve the lethality, survivability, mobility and situational awareness of the Bradley Fighting Vehicle. Reduced Bradley Fighting Vehicle capability, survivability, and mobility will occur if these modifications are delayed or reduced.



| Exhibit P-40M Budget Item Justification Sheet  |                        |              |         |                                |         |         |         |         |         | Date  |       |
|--|------------------------|--------------|---------|--------------------------------|---------|---------|---------|---------|---------|---|-------|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                        |              |         |                                |         |         |         |         |         | P-1 Item Nomenclature<br>BFVS SERIES (MOD) (GZ2400) |       |
| Program Elements for Code B Items  |                        |              | Code    | Other Related Program Elements |         |         |         |         |         |   |       |
| Description  |                        | Fiscal Years |         |                                |         |         |         |         |         |   |       |
| OSIP NO.   | Classification         | FY 1996      | FY 1997 | FY 1998                        | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| A1-A2 Conversion   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-84-05-4038   | Oper. Capability       | 347.3        | 16.4    | 16.8                           | 13.6    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 394.1 |
| A2 ODS Mods  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-92-05-4404   | Oper. Capability       | 67.2         | 49.6    | 28.9                           | 31.9    | 1.6     | 0.0     | 0.0     | 0.0     | 0.0   | 179.2 |
| Transmission Electronic Controller (TEC)   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-90-05-4282   | Oper. Capability       | 5.8          | 4.1     | 3.6                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 13.5  |
| ACU Pillow Block Mod   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-91-05-4314   | Oper. Capability       | 5.8          | 0.9     | 0.6                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 7.2   |
| Vehicle Intercom System  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-90-05-4284   | Oper. Capability       | 8.4          | 3.0     | 3.9                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 15.3  |
| DECA   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-93-05-4441   | Oper. Capability       | 11.5         | 5.7     | 1.4                            | 2.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 21.1  |
| HALON Replacement  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-92-05-4422   | Legisl. Compliance     | 3.7          | 0.6     | 4.7                            | 0.1     | 0.1     | 0.0     | 0.0     | 0.0     | 0.0   | 9.2   |
| Armor Tiles  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-84-05-4038   | Oper. Capability       | 40.6         | 32.7    | 0.0                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 73.3  |
| A2 Card Retrofit   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-96-05-4517   | safety                 | 0.0          | 0.8     | 0.0                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 0.8   |
| Suite of Survivability Enhancement Systems (No P3a Set)  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-96-05-4514   | Oper. Capability       | 0.0          | 0.0     | 0.0                            | 0.0     | 0.0     | 7.4     | 4.0     | 7.6     | 0.0   | 19.0  |
| A2 ODS Applique  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-98-05-4539   | Operational Capability | 0.0          | 0.0     | 0.0                            | 10.9    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 10.9  |
| Totals   |                        | 490.3        | 113.6   | 60.0                           | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0   | 743.6 |

| INDIVIDUAL MODIFICATION  |         |    |    |    |         |    |    |    |         | Date           |    | February 1998 |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|--|---------|----|----|----|---------|----|----|----|---------|----------------|----|---------------|---------|---|---|---------------------|-------------|--------|---|---|------|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|-----|----|----|----|----|----|----|----|----|----|----|--|--|--|------|----------------|--|--|--|--|--|----------------|-----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|------|--|--|--|--|--|
| MODIFICATION TITLE: A1-A2 Conversion 1-84-05-4038  |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M2A1 (IFV) / M3A1 (CFV)  |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br>The BFVS conversion effort converts the A1 configuration to an A2 configuration.<br>The conversion effort includes:<br>1. High Survivability (HS) Kit which will enhance vehicle survivability through the application of alternate armor and selective use of crew compartment spall liners for increased protection against threat from frontal attack. The HS kit also contains other associated changes such as restowage, swim curtain, IFV firing ports, and M240 gun upright.<br>2. The 600HP power pack, which includes the 600 HP engine and the reliability improved 500-3 Transmission which eliminates the adverse impact of increased vehicle weight on vehicle performance and reliability, resulting from High Survivability changes.   |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |    |    |    |         |    |    |    |         | <u>PLANNED</u> |    |               |         |   |   | <u>ACCOMPLISHED</u> |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Preliminary Design Review:   |         |    |    |    |         |    |    |    |         | NA             |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Critical Design Review:  |         |    |    |    |         |    |    |    |         | NA             |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Contractor Test and Evaluation:  |         |    |    |    |         |    |    |    |         | NA             |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Development Test and Evaluation:   |         |    |    |    |         |    |    |    |         | NA             |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |         |    |    |    |         |    |    |    |         | NA             |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| IPR Production Decision  |         |    |    |    |         |    |    |    |         | 3Q89           |    |               |         |   |   | 3Q89                |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| TDP Available:   |         |    |    |    |         |    |    |    |         | 3Q89           |    |               |         |   |   | 3Q89                |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Installation Schedule:   |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td>938</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>896</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 938 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |  |  |  |      |                |  |  |  |  |  | <b>Outputs</b> | 896 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |  |  |  |  |      |  |  |  |  |  |
| Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |    |    | FY 1999 |                |    |               | FY 2000 |   |   |                     | FY 2001     |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|  | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2              | 3  | 4             | 1       | 2 | 3 | 4                   | 1           | 2      | 3 | 4 |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Inputs</b>  | 938     | 42 | 42 | 42 | 42      | 42 | 42 | 42 | 42      | 42             | 42 |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Outputs</b>   | 896     | 42 | 42 | 42 | 42      | 42 | 42 | 42 | 42      | 42             | 42 |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1358</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1358</td> </tr> </tbody> </table>  |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  | 1358 | <b>Outputs</b> |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  | 1358 |  |  |  |  |  |
|  | FY 2002 |    |    |    | FY 2003 |    |    |    | FY 2004 |                |    |               | FY 2005 |   |   |                     | To Complete | Totals |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|  | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2              | 3  | 4             | 1       | 2 | 3 | 4                   |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Inputs</b>  |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   | 1358 |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Outputs</b>   |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      | 1358  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Depot Conversion      ADMINISTRATIVE LEADTIME: 6 Months      PRODUCTION LEADTIME: 12 Months  |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Contract Dates: FY 1997 Jan 97      FY 1998      FY 1999   |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Delivery Date: FY 1997 Jan 98      FY 1998      FY 1999  |         |    |    |    |         |    |    |    |         |                |    |               |         |   |   |                     |             |        |   |   |      |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): A1-A2 Conversion 1-84-05-4038

FINANCIAL PLAN: (\$ in Millions)

|                                | FY 1996<br>and Prior |       | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |       |
|--------------------------------|----------------------|-------|---------|------|---------|------|---------|------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-------|
|                                | Qty                  | \$    | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |       |
| RDT&E                          |                      | 115.6 |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      | 115.6 |
| PROCUREMENT                    |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Kit Quantity                   |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits              |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits Nonrecurring |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| 600 HP Engine                  | 1317                 | 45.6  | 41      | 1.9  |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       | 1358 | 47.5  |
| 500-3 Transmission             | 1358                 | 39.2  |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       | 1358 | 39.2  |
| High Survivability kits        | 1358                 | 187.9 |         | 2.5  |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       | 1358 | 190.4 |
| Engineering Change Orders      |                      | 0.9   |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      | 0.9   |
| Training Equipment             |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Support Equipment              |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Other                          |                      | 1.6   |         | 0.8  |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      | 2.5   |
| Interim Contractor Support     |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Pre-mod Depot Maintenance      |                      |       |         |      |         |      |         | 6.2  |         |    |         |    |         |    |         |    |     |    |       |      | 6.2   |
| Installation of Hardware       |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1996 & Prior Eqpt -- Kits   | 977                  | 72.1  | 136     | 11.2 | 168     | 16.8 | 36      | 3.4  |         |    |         |    |         |    |         |    |     |    |       | 1317 | 103.5 |
| FY 1997 Eqpt -- Kits           |                      |       |         |      |         |      | 41      | 3.9  |         |    |         |    |         |    |         |    |     |    |       | 41   | 3.9   |
| FY 1998 Eqpt -- Kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1999 Eqpt -- Kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2000 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2001 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2002 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2003 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| TC Equip-Kits                  |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Total Installment              | 977                  | 72.1  | 136     | 11.2 | 168     | 16.8 | 77      | 7.3  |         |    |         |    |         |    |         |    |     |    |       | 1358 | 107.4 |
| Total Procurement Cos          |                      | 347.3 |         | 16.4 |         | 16.8 |         | 13.6 |         |    |         |    |         |    |         |    |     |    |       |      | 394.1 |

| INDIVIDUAL MODIFICATION  |         |    |    |     |         |    |     |     |         |                     |    |    |         | Date | February 1998  |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
|--|---------|----|----|-----|---------|----|-----|-----|---------|---------------------|----|----|---------|------|----------------|---|-------------|--------|----|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|----|----|----|----|---|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|---------|----|----|----|----|--------|----|----|----|-----|-----|----|-----|-----|-----|----|----|----|-----|-----|--|------|--|----|----|----|----|---------|----|----|----|-----|-----|----|-----|-----|-----|----|----|----|-----|-----|--|--|--|----|----|----|----|
| MODIFICATION TITLE: A2 ODS Mods 1-92-05-4404   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| MODELS OF SYSTEMS AFFECTED: M2A2/M3A2  |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| DESCRIPTION / JUSTIFICATION:   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Six vehicle improvements (ECP's) which will correct deficiencies identified in Operation Desert Storm. These increase vehicle lethality and survivability and situational awareness. Additionally, included in this effort are Armored Hatches to further improve vehicle survivability.   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| a. Laser Range Finder: will give the BFVS a first burst on target capability and reduce the time required to acquire and kill a target.  |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| b. Position Navigation System: Global Positioning System (GPS) integrating hardware and a self calibrating digital compass. This will enable the Bradley commander to determine his exact location at all times and determine the heading and distance to any location.  |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| c. Equipment Restow Improvement: Improves the method of stowing internal and external equipment.   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| d. Combat Identification System (CID): Provides integration hardware for the passive CID system that will provide visual and thermal signatures detectable between ground to ground vehicles and from air to ground.   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| e. Driver's Thermal Viewer: Increases the driver's ability to see through battlefield obscurants such as dust, fog and smoke during night and day.   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| f. Missile Countermeasure Device: Provides additional protection against a variety of anti tank missiles.  |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |    |    |     |         |    |     |     |         | <u>ACCOMPLISHED</u> |    |    |         |      | <u>PLANNED</u> |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Preliminary Design Review:   |         |    |    |     |         |    |     |     |         | 4Q93                |    |    |         |      | 4Q93           |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Critical Design Review:  |         |    |    |     |         |    |     |     |         | 2Q94                |    |    |         |      | 2Q94           |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Contractor Test and Evaluation:  |         |    |    |     |         |    |     |     |         | 3Q94                |    |    |         |      | 3Q94           |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Development Test and Evaluation:   |         |    |    |     |         |    |     |     |         | 4Q94                |    |    |         |      | 1Q95           |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Initial Operational Test and Evaluation:   |         |    |    |     |         |    |     |     |         | 1Q95                |    |    |         |      | 1Q95           |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| IPR Production Decision  |         |    |    |     |         |    |     |     |         | 2Q95                |    |    |         |      | 2Q95           |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Installation Schedule:   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>Inputs</td> <td>26</td><td>93</td><td>93</td><td>124</td><td>124</td> <td>95</td><td>115</td><td>104</td><td>147</td> <td>72</td><td>57</td><td>89</td><td>126</td> <td>105</td><td></td><td></td><td></td> <td>17</td><td>17</td><td>16</td><td>16</td> </tr> <tr> <td>Outputs</td> <td>26</td><td>93</td><td>93</td><td>124</td><td>124</td> <td>95</td><td>115</td><td>104</td><td>147</td> <td>72</td><td>57</td><td>89</td><td>126</td> <td>105</td><td></td><td></td><td></td> <td>17</td><td>17</td><td>16</td><td>16</td> </tr> </tbody> </table> |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3      | 4  | 1  | 2  | 3  | 4 | Totals |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    | Inputs | 26 | 93 | 93 | 124 | 124 | 95 | 115 | 104 | 147 | 72 | 57 | 89 | 126 | 105 |  |      |  | 17 | 17 | 16 | 16 | Outputs | 26 | 93 | 93 | 124 | 124 | 95 | 115 | 104 | 147 | 72 | 57 | 89 | 126 | 105 |  |  |  | 17 | 17 | 16 | 16 |
| Pr Yr  | FY 1997 |    |    |     | FY 1998 |    |     |     | FY 1999 |                     |    |    | FY 2000 |      |                |   | FY 2001     |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
|  | 1       | 2  | 3  | 4   | 1       | 2  | 3   | 4   | 1       | 2                   | 3  | 4  | 1       | 2    | 3              | 4 | 1           | 2      | 3  | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Totals   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Inputs   | 26      | 93 | 93 | 124 | 124     | 95 | 115 | 104 | 147     | 72                  | 57 | 89 | 126     | 105  |                |   |             | 17     | 17 | 16    | 16      |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Outputs  | 26      | 93 | 93 | 124 | 124     | 95 | 115 | 104 | 147     | 72                  | 57 | 89 | 126     | 105  |                |   |             | 17     | 17 | 16    | 16      |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Inputs</td> <td>15</td><td>14</td><td>14</td><td>14</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>1493</td> </tr> <tr> <td>Outputs</td> <td>15</td><td>14</td><td>14</td><td>14</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>1493</td> </tr> </tbody> </table>   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | Inputs | 15 | 14 | 14 | 14 |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1493 | Outputs | 15 | 14 | 14 | 14 |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  | 1493 |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
|  | FY 2002 |    |    |     | FY 2003 |    |     |     | FY 2004 |                     |    |    | FY 2005 |      |                |   | To Complete | Totals |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
|  | 1       | 2  | 3  | 4   | 1       | 2  | 3   | 4   | 1       | 2                   | 3  | 4  | 1       | 2    | 3              | 4 |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Inputs   | 15      | 14 | 14 | 14  |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       | 1493    |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Outputs  | 15      | 14 | 14 | 14  |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       | 1493    |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| METHOD OF IMPLEMENTATION: Contr/Depot/Field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Contract Dates: FY 1997 Jan 97 FY 1998 Jan 98 FY 1999 Jan 99   |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |
| Delivery Date: FY 1997 Jan 98 FY 1998 Jan 99 FY 1999 Jan 00  |         |    |    |     |         |    |     |     |         |                     |    |    |         |      |                |   |             |        |    |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |    |    |    |    |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |         |    |    |    |    |        |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |      |  |    |    |    |    |         |    |    |    |     |     |    |     |     |     |    |    |    |     |     |  |  |  |    |    |    |    |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): A2 ODS Mods 1-92-05-4404

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |      | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |       |
|---|-------------------|------|---------|------|---------|------|---------|------|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|------|-------|
|   | Qty               | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |       |
| RDT&E                                     |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| PROCUREMENT                               |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Kit Quantity                              |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits                         | 690               | 63.3 | 415     | 45.3 | 215     | 28.9 | 173     | 25.5 |         |     |         |    |         |    |         |    |     |    |       | 1493 | 163.1 |
| Installation Kits, Nonrecurring Equipment |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Equipment, Nonrecurring                   |                   | 1.9  |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      | 1.9   |
| Engineering Change Orders                 |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Data                                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Training Equipment                        |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Support Equipment                         |                   | 0.2  |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      | 0.2   |
| Other                                     |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Interim Contractor Support                |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Installation of Hardware                  |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 1996 & Prior Eqpt -- Kits              | 193               | 1.8  | 356     | 4.2  |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       | 549  | 6.0   |
| FY 1997 Eqpt -- Kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 1998 Eqpt -- Kits                      |                   |      |         |      |         |      | 122     | 6.4  |         |     |         |    |         |    |         |    |     |    |       | 122  | 6.4   |
| FY 1999 Eqpt -- Kits                      |                   |      |         |      |         |      |         |      | 116     | 1.6 |         |    |         |    |         |    |     |    |       | 116  | 1.6   |
| FY 2000 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 2001 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 2002 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 2003 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| TC Equip-Kits                             |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Total Installment                         | 193               | 1.8  | 356     | 4.2  |         |      | 122     | 6.4  | 116     | 1.6 |         |    |         |    |         |    |     |    |       | 787  | 14.0  |
| Total Procurement Cos                     |                   | 67.2 |         | 49.6 |         | 28.9 |         | 31.9 |         | 1.6 |         |    |         |    |         |    |     |    |       |      | 179.2 |

NOTE: Application quantities and costs reflect kits applied by field retrofit only. Costs for ODS application during AO-A2 remanufacture and A1-A2 conversion are reflected on their respective P-forms.

| INDIVIDUAL MODIFICATION  |        |                   |    |    |    |                          |    |    |    | Date     |    | February 1998 |    |                      |   |   |   |          |        |   |   |
|--|--------|-------------------|----|----|----|--------------------------|----|----|----|----------|----|---------------|----|----------------------|---|---|---|----------|--------|---|---|
| MODIFICATION TITLE: Transmission Electronic Controller (TEC) 1-90-05-4282  |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M2A2/M3A2  |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The Transmission Electronic Controller (TEC) replaces the hydromechanical transmission control with an electromechanical control. The TEC directly improves transmission maintainability and reliability. The control features of TEC will provide improved acceleration, fuel utilization and hot and cold performance, and better low speed maneuverability. |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:<br><br>IPR Production Decision: 2Q94<br>TDP Available: 2Q94   |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          |        |   |   |
| Installation Schedule:   |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          |        |   |   |
|  | Pr Yr  | FY 1997           |    |    |    | FY 1998                  |    |    |    | FY 1999  |    |               |    | FY 2000              |   |   |   | FY 2001  |        |   |   |
|  | Totals | 1                 | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1        | 2  | 3             | 4  | 1                    | 2 | 3 | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>  | 26     | 61                | 61 | 61 | 61 | 61                       | 61 | 61 | 62 | 61       | 61 | 61            | 61 | 61                   |   |   |   |          |        |   |   |
| <b>Outputs</b>   | 26     | 61                | 61 | 61 | 61 | 61                       | 61 | 61 | 62 | 61       | 61 | 61            | 61 | 61                   |   |   |   |          |        |   |   |
|  |        | FY 2002           |    |    |    | FY 2003                  |    |    |    | FY 2004  |    |               |    | FY 2005              |   |   |   | To       | Totals |   |   |
|  |        | 1                 | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1        | 2  | 3             | 4  | 1                    | 2 | 3 | 4 | Complete |        |   |   |
| <b>Inputs</b>  |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          | 820    |   |   |
| <b>Outputs</b>   |        |                   |    |    |    |                          |    |    |    |          |    |               |    |                      |   |   |   |          | 820    |   |   |
| METHOD OF IMPLEMENTATION:  |        | Contr/depot/field |    |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 6 Months |    |               |    | PRODUCTION LEADTIME: |   |   |   | 8 Months |        |   |   |
| Contract Dates:  |        | FY 1997 Dec 97    |    |    |    | FY 1998 Dec 98           |    |    |    | FY 1999  |    |               |    |                      |   |   |   |          |        |   |   |
| Delivery Date:   |        | FY 1997 Aug 98    |    |    |    | FY 1998 Aug 99           |    |    |    | FY 1999  |    |               |    |                      |   |   |   |          |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Transmission Electronic Controller (TEC) 1-90-05-4282

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996<br>and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|----------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty                  | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits   | 333                  | 5.8 | 256     | 4.1 | 231     | 3.6 |         |    |         |    |         |    |         |    |         |    |     |    |       | 820 | 13.5 |
| Installation Kits, Nonrecurring                             |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment, Nonrecurring                                     |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders                                   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support                                  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| NOTE: Application is budgeted as part of the A2 ODS program |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                                    |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits                                |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                                       |                      | 5.8 |         | 4.1 |         | 3.6 |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 13.5 |

| INDIVIDUAL MODIFICATION  |        |                |     |     |     |                |     |     |     | Date           |   | February 1998 |   |         |   |                     |   |          |        |   |   |
|--|--------|----------------|-----|-----|-----|----------------|-----|-----|-----|----------------|---|---------------|---|---------|---|---------------------|---|----------|--------|---|---|
| MODIFICATION TITLE: ACU Pillow Block Mod 1-91-05-4314  |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
| MODELS OF SYSTEMS AFFECTED: TOW 2 SUBSYSTEM  |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br><br>This block modification combines 5 class 1 ECPs into a consolidated block ACU package. The ACU is part of the TOW missile launcher. These modifications will seal against moisture and eliminate pillow block associated damage to the ACU which can result in critical failures of the TOW weapon system package. |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |                |     |     |     |                |     |     |     | <u>Planned</u> |   |               |   |         |   | <u>Accomplished</u> |   |          |        |   |   |
| Preliminary Design Review:   |        |                |     |     |     |                |     |     |     | NA             |   |               |   |         |   | NA                  |   |          |        |   |   |
| Critical Design Review:  |        |                |     |     |     |                |     |     |     | NA             |   |               |   |         |   | NA                  |   |          |        |   |   |
| Contractor Test and Evaluation:  |        |                |     |     |     |                |     |     |     | NA             |   |               |   |         |   | NA                  |   |          |        |   |   |
| Development Test and Evaluation:   |        |                |     |     |     |                |     |     |     | NA             |   |               |   |         |   | NA                  |   |          |        |   |   |
| Initial Operational Test and Evaluation:   |        |                |     |     |     |                |     |     |     | NA             |   |               |   |         |   | NA                  |   |          |        |   |   |
| IPR Production Decision  |        |                |     |     |     |                |     |     |     | 1Q92           |   |               |   |         |   | 1Q92                |   |          |        |   |   |
| TDP Available:   |        |                |     |     |     |                |     |     |     | NA             |   |               |   |         |   | NA                  |   |          |        |   |   |
| Installation Schedule:   |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
|  | Pr Yr  | FY 1997        |     |     |     | FY 1998        |     |     |     | FY 1999        |   |               |   | FY 2000 |   |                     |   | FY 2001  |        |   |   |
|  | Totals | 1              | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1              | 2 | 3             | 4 | 1       | 2 | 3                   | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>  | 1874   | 334            | 334 | 334 | 333 | 267            | 266 | 267 | 266 |                |   |               |   |         |   |                     |   |          |        |   |   |
| <b>Outputs</b>   | 1874   | 334            | 334 | 334 | 333 | 267            | 266 | 267 | 266 |                |   |               |   |         |   |                     |   |          |        |   |   |
|  |        | FY 2002        |     |     |     | FY 2003        |     |     |     | FY 2004        |   |               |   | FY 2005 |   |                     |   | To       | Totals |   |   |
|  |        | 1              | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1              | 2 | 3             | 4 | 1       | 2 | 3                   | 4 | Complete |        |   |   |
| <b>Inputs</b>  |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          | 4275   |   |   |
| <b>Outputs</b>   |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          | 4275   |   |   |
| METHOD OF IMPLEMENTATION: Contractor teams   |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
| ADMINISTRATIVE LEADTIME:   |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
| PRODUCTION LEADTIME:   |        |                |     |     |     |                |     |     |     |                |   |               |   |         |   |                     |   |          |        |   |   |
| Contract Dates:  |        | FY 1997 Mar 97 |     |     |     | FY 1998 Mar 98 |     |     |     | FY 1999        |   |               |   |         |   |                     |   |          |        |   |   |
| Delivery Date:   |        | FY 1997 N/A    |     |     |     | FY 1998 N/A    |     |     |     | FY 1999        |   |               |   |         |   |                     |   |          |        |   |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): ACU Pillow Block Mod 1-91-05-4314

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---------------------------------|-------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|                                 | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                    |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits               | 4275              | 4.5 |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       | 4275 | 4.5 |
| Installation Kits, Nonrecurring |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment                       |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment, Nonrecurring         |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders       |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data                            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment              |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment               |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other                           |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware        |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    | 1874              | 1.3 | 1335    | 0.9 | 1066    | 0.6 |         |    |         |    |         |    |         |    |         |    |     |    |       | 4275 | 2.8 |
| FY 1997 Eqpt -- Kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1999 Eqpt -- Kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment               | 1874              | 1.3 | 1335    | 0.9 | 1066    | 0.6 |         |    |         |    |         |    |         |    |         |    |     |    |       | 4275 | 2.8 |
| Total Procurement Cos           |                   | 5.8 |         | 0.9 |         | 0.6 |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 7.2 |

| INDIVIDUAL MODIFICATION  |  |  |  |  |  |  |  |  |  | Date           |  | February 1998 |  |  |                     |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|----------------|--|---------------|--|--|---------------------|--|--|--|--|
| MODIFICATION TITLE: Vehicle Intercom System 1-90-05-4284   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: A2 ODS M2/M3   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The VIS system is a replacement for the AN/VIC-1 intercom system. It is a digital intercom system which provides internal communication as well as access to the vehicle radios. This is a non-developmental item to be applied to the A2 ODS vehicle. |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |  |  |  |  |  |  |  |  | <u>PLANNED</u> |  |               |  |  | <u>ACCOMPLISHED</u> |  |  |  |  |
| Preliminary Design Review:   |  |  |  |  |  |  |  |  |  | NA             |  |               |  |  | NA                  |  |  |  |  |
| Critical Design Review:  |  |  |  |  |  |  |  |  |  | NA             |  |               |  |  | NA                  |  |  |  |  |
| Contractor Test and Evaluation:  |  |  |  |  |  |  |  |  |  | NA             |  |               |  |  | NA                  |  |  |  |  |
| Development Test and Evaluation:   |  |  |  |  |  |  |  |  |  | NA             |  |               |  |  | NA                  |  |  |  |  |
| Initial Operational Test and Evaluation:   |  |  |  |  |  |  |  |  |  | 2Q95           |  |               |  |  | 2Q95                |  |  |  |  |
| IPR Production Decision  |  |  |  |  |  |  |  |  |  | 3Q95           |  |               |  |  | 3Q95                |  |  |  |  |
| TDP Available:   |  |  |  |  |  |  |  |  |  | NA             |  |               |  |  | NA                  |  |  |  |  |
| Installation Schedule:   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Pr Yr  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| To Complete  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| 960  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| 960  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor/Depot ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Contract Dates: FY 1997 Mar 97 FY 1998 Mar 98 FY 1999  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |
| Delivery Date: FY 1997 Sep 97 FY 1998 Sep 98 FY 1999   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |                     |  |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Vehicle Intercom System 1-90-05-4284

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|-------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits   | 553               | 8.4 | 262     | 3.0 | 145     | 3.9 |         |    |         |    |         |    |         |    |         |    |     |    |       | 960 | 15.3 |
| Installation Kits, Nonrecurring Equipment                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment, Nonrecurring                                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders                                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support                                  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| APPLICATION SCHEDULED AND BUDGETED AS PART OF A2ODS PROGRAM |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                                    |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits                                |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                                       |                   | 8.4 |         | 3.0 |         | 3.9 |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 15.3 |

| INDIVIDUAL MODIFICATION   |  |                    |    |    |    |                          |    |    |    | Date           |    | February 1998 |    |                      |    |                     |   |          |   |        |     |     |
|---|--|--------------------|----|----|----|--------------------------|----|----|----|----------------|----|---------------|----|----------------------|----|---------------------|---|----------|---|--------|-----|-----|
| MODIFICATION TITLE: DECA 1-93-05-4441   |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |     |
| MODELS OF SYSTEMS AFFECTED: M2A2/M3A2   |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |     |
| DESCRIPTION / JUSTIFICATION:<br><br>The DECA is the microprocessor based controller of the turret drive system. It transfers signals from crew and sensor inputs to the approp subsystem to execute a specific task. The DECA replaces the Electronic Control Assembly (ECA) and provides built in testing, improved reliability and elimination of hull and turret gyro. |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                    |    |    |    |                          |    |    |    | <u>PLANNED</u> |    |               |    |                      |    | <u>ACCOMPLISHED</u> |   |          |   |        |     |     |
| Preliminary Design Review:  |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |     |
| Critical Design Review:   |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |     |
| Contractor Test and Evaluation:   |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |     |
| Development Test and Evaluation:  |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |     |
| Initial Operational Test and Evaluation:  |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |     |
| IPR Production Decision   |  |                    |    |    |    |                          |    |    |    | 3Q89           |    |               |    |                      |    | 3Q89                |   |          |   |        |     |     |
| TDP Available:  |  |                    |    |    |    |                          |    |    |    | 3Q89           |    |               |    |                      |    | 3Q89                |   |          |   |        |     |     |
| Installation Schedule:  |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |     |
| Pr Yr   |  | FY 1997            |    |    |    | FY 1998                  |    |    |    | FY 1999        |    |               |    | FY 2000              |    |                     |   | FY 2001  |   |        |     |     |
| Totals  |  | 1                  | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2  | 3             | 4  | 1                    | 2  | 3                   | 4 | 1        | 2 | 3      | 4   |     |
| <b>Inputs</b>   |  | 26                 | 49 | 49 | 80 | 78                       | 38 | 57 | 46 | 88             | 72 | 57            | 50 | 85                   | 66 |                     |   |          |   |        |     |     |
| <b>Outputs</b>  |  | 26                 | 49 | 49 | 80 | 78                       | 38 | 57 | 46 | 88             | 72 | 57            | 50 | 85                   | 66 |                     |   |          |   |        |     |     |
|   |  | FY 2002            |    |    |    | FY 2003                  |    |    |    | FY 2004        |    |               |    | FY 2005              |    |                     |   | To       |   | Totals |     |     |
|   |  | 1                  | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2  | 3             | 4  | 1                    | 2  | 3                   | 4 | Complete |   |        |     |     |
| <b>Inputs</b>   |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        | 841 |     |
| <b>Outputs</b>  |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     | 841 |
| METHOD OF IMPLEMENTATION:   |  | Contractor & Depot |    |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 6 Months       |    |               |    | PRODUCTION LEADTIME: |    |                     |   | 8 Months |   |        |     |     |
| Contract Dates:   |  | FY 1997 Jan 97     |    |    |    | FY 1998 Jan 98           |    |    |    | FY 1999 Jan 99 |    |               |    |                      |    |                     |   |          |   |        |     |     |
| Delivery Date:  |  | FY 1997 Sep 97     |    |    |    | FY 1998 Sep 98           |    |    |    | FY 1999 Sep 99 |    |               |    |                      |    |                     |   |          |   |        |     |     |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): DECA 1-93-05-4441

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996<br>and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|----------------------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty                  | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits, Nonrecurring   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment   | 450                  | 11.5 | 233     | 5.7 | 58      | 1.4 | 100     | 2.5 |         |    |         |    |         |    |         |    |     |    |       | 841 | 21.1 |
| Equipment, Nonrecurring   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| APPLICATION BUDGETED AS PART OF A1-A2 CONVERSION AND A2 ODS APPLICATION |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos   |                      | 11.5 |         | 5.7 |         | 1.4 |         | 2.5 |         |    |         |    |         |    |         |    |     |    |       |     | 21.1 |

| INDIVIDUAL MODIFICATION  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      | Date |             | February 1998 |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
|--|---------|---|---|---|---------|---|---|-----|---------|------|-----|-----|---------|-----|------|------|-------------|---------------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|--|--|--|--|--|--|--|-----|-----|-----|-----|-----|-----|------|----------------|-----|--|--|--|--|----------------|--|--|--|--|--|--|--|-----|-----|-----|-----|-----|-----|------|-----|-----|--|--|--|--|
| MODIFICATION TITLE: HALON Replacement 1-92-05-4422   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle System  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The Halon replacement program is in response to DOD and Army policy to eliminate the unnecessary release of Halon into the atmosphere. This program will provide an alternate agent to use in the BFV engine compartment fire extinguishers.   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Preliminary Design Review:   |         |   |   |   |         |   |   |     |         | 3Q95 |     |     |         |     | 1Q96 |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Critical Design Review:  |         |   |   |   |         |   |   |     |         | 4Q96 |     |     |         |     | 1Q97 |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Contractor Test and Evaluation:  |         |   |   |   |         |   |   |     |         | NA   |     |     |         |     | NA   |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Development Test and Evaluation:   |         |   |   |   |         |   |   |     |         | 4Q96 |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Initial Operational Test and Evaluation:   |         |   |   |   |         |   |   |     |         | NA   |     |     |         |     | NA   |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| IPR Production Decision  |         |   |   |   |         |   |   |     |         | 2Q98 |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Approve ECP:   |         |   |   |   |         |   |   |     |         | 2Q98 |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Installation Schedule:   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>264</td> <td>811</td><td>811</td><td>811</td><td>812</td> <td>803</td><td>803</td><td>803</td><td>802</td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>264</td> <td>811</td><td>811</td><td>811</td><td>812</td> <td>803</td><td>803</td><td>803</td><td>802</td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |  |  |  |  |  |  |  | 264 | 811 | 811 | 811 | 812 | 803 | 803  | 803            | 802 |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  | 264 | 811 | 811 | 811 | 812 | 803 | 803  | 803 | 802 |  |  |  |  |
| Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |     | FY 1999 |      |     |     | FY 2000 |     |      |      | FY 2001     |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4   | 1       | 2    | 3   | 4   | 1       | 2   | 3    | 4    | 1           | 2             | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   | 264 | 811     | 811  | 811 | 812 | 803     | 803 | 803  | 802  |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   | 264 | 811     | 811  | 811 | 812 | 803     | 803 | 803  | 802  |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>6720</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>6720</td> </tr> </tbody> </table>   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     | 6720 | <b>Outputs</b> |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     | 6720 |     |     |  |  |  |  |
|  | FY 2002 |   |   |   | FY 2003 |   |   |     | FY 2004 |      |     |     | FY 2005 |     |      |      | To Complete | Totals        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4   | 1       | 2    | 3   | 4   | 1       | 2   | 3    | 4    |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   | 6720  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   | 6720  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor Teams ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Contract Dates: FY 1997 N/A FY 1998 Mar 98 FY 1999   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Delivery Date: FY 1997 N/A FY 1998 N/A FY 1999   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): HALON Replacement 1-92-05-4422

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits   |                   |     |         |     | 6720    | 4.4 |         |     |         |     |         |    |         |    |         |    |     |    | 6720  | 4.4 |     |
| Installation Kits, Nonrecurring Equipment   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring   |                   |     |         |     |         | 0.3 |         |     |         |     |         |    |         |    |         |    |     |    |       |     | 0.3 |
| Engineering Change Orders   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Data  |                   | 3.7 |         | 0.6 |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     | 4.3 |
| Training Equipment  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Other   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| NOTE: Installation quantity and cost reflect field retrofit only. Applications occurring during A1-A2 conversion, A0-A2 remanufacture and ODS field retrofit are reflected on their respective P-Forms. |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits  |                   |     |         |     | 160     | 0.0 | 2835    | 0.1 | 2835    | 0.1 |         |    |         |    |         |    |     |    | 5830  | 0.2 |     |
| FY 1998 Eqpt -- Kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment   |                   |     |         |     | 160     | 0.0 | 2835    | 0.1 | 2835    | 0.1 |         |    |         |    |         |    |     |    | 5830  | 0.2 |     |
| Total Procurement Cos   |                   | 3.7 |         | 0.6 |         | 4.7 |         | 0.1 |         | 0.1 |         |    |         |    |         |    |     |    |       |     | 9.2 |

| INDIVIDUAL MODIFICATION   |  |                 |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |   |                     |   |          |   |        |   |
|---|--|-----------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|---|---------------------|---|----------|---|--------|---|
| MODIFICATION TITLE: <b>Armor Tiles 1-84-05-4038</b>   |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M2A2(IFV)/M3A2(CFV)   |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>Armor tiles are one of the High Survivability improvements to the BFVS. The tiles provide increased armor protection for shaped charge threats, including hand held heat and other classes of warheads as specified in the BFVS material need area. There are 5 configurations of tiles covering the vehicle front, sides and turret. |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                 |   |   |   |                          |   |   |   | <u>PLANNED</u> |   |               |   |                      |   | <u>ACCOMPLISHED</u> |   |          |   |        |   |
| Preliminary Design Review:  |  |                 |   |   |   |                          |   |   |   | NA             |   |               |   |                      |   |                     |   |          |   |        |   |
| Critical Design Review:   |  |                 |   |   |   |                          |   |   |   | 3Q90           |   |               |   |                      |   | 3Q90                |   |          |   |        |   |
| Contractor Test and Evaluation:   |  |                 |   |   |   |                          |   |   |   | NA             |   |               |   |                      |   |                     |   |          |   |        |   |
| Development Test and Evaluation:  |  |                 |   |   |   |                          |   |   |   | NA             |   |               |   |                      |   |                     |   |          |   |        |   |
| Initial Operational Test and Evaluation:  |  |                 |   |   |   |                          |   |   |   | NA             |   |               |   |                      |   |                     |   |          |   |        |   |
| IPR Production Decision   |  |                 |   |   |   |                          |   |   |   | 2Q92           |   |               |   |                      |   | 2Q93                |   |          |   |        |   |
| TDP Available:  |  |                 |   |   |   |                          |   |   |   | NA             |   |               |   |                      |   |                     |   |          |   |        |   |
| Installation Schedule:  |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
|   |  | FY 1997         |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |   |                     |   | FY 2001  |   |        |   |
|   |  | 1               | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2 | 3                   | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
| <b>Outputs</b>  |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
|   |  | FY 2002         |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |   |                     |   | To       |   | Totals |   |
|   |  | 1               | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2 | 3                   | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
| <b>Outputs</b>  |  |                 |   |   |   |                          |   |   |   |                |   |               |   |                      |   |                     |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Troop installed |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months       |   |               |   | PRODUCTION LEADTIME: |   |                     |   | 6 Months |   |        |   |
| Contract Dates:   |  | FY 1997 Sep 97  |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   |                      |   |                     |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 Jan 99  |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   |                      |   |                     |   |          |   |        |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Armor Tiles 1-84-05-4038

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |      | FY 1997 |      | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|-------------------|------|---------|------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty               | \$   | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E                                     |                   | 4.0  |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 4.0  |
| PROCUREMENT                               |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity                              |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits                         | 136               | 34.3 | 110     | 23.5 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 246 | 57.7 |
| Installation Kits, Nonrecurring Equipment |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment, Nonrecurring                   |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders                 |                   |      |         | 0.5  |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.5  |
| Data                                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment                        |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment                         |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other                                     |                   | 6.3  |         | 8.8  |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 15.1 |
| Interim Contractor Support                |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                  |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits              |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits                             |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment                         |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                     |                   | 40.6 |         | 32.7 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 73.3 |

| INDIVIDUAL MODIFICATION  |  |  |  |  |  |  |  |  |  | Date           |  | February 1998 |  |  |  |                     |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|----------------|--|---------------|--|--|--|---------------------|--|--|--|--|--|
| MODIFICATION TITLE: A2 Card Retrofit 1-96-05-4517  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: TOW 2 Subsystem (T2SS) Missile Guidance System (MGS)   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The relay/squib circuit card assembly (CCA) controls the power up/power down functions of the MGS and provides indications of missile launch, flight status and modes of operation. It also generates the PREFIRE and FIRE squib control signals required to launch the missile the WIRECUT squib control signal used to cut the missile guidance wires. This mod will add a semiconductor device diode across resistor "R39" on the A2 CCA to increase the speed of discharge for capacitor C21 and to prevent an inadvertent missile launch. |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |  |  |  |  |  |  |  |  | <u>PLANNED</u> |  |               |  |  |  | <u>ACCOMPLISHED</u> |  |  |  |  |  |
| Preliminary Design Review:   |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Critical Design Review:  |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Contractor Test and Evaluation:  |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Development Test and Evaluation:   |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| IPR Production Decision  |  |  |  |  |  |  |  |  |  | 1Q96           |  |               |  |  |  | 1Q96                |  |  |  |  |  |
| TDP Available:   |  |  |  |  |  |  |  |  |  | 1Q96           |  |               |  |  |  | 1Q96                |  |  |  |  |  |
| Installation Schedule:   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Pr Yr  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| To Complete  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| 3258   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| 3258   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor teams ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 2 Months   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Contract Dates: FY 1997 Sep 97 FY 1998 May 98 FY 1999  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Delivery Date: FY 1997 Nov 97 FY 1998 Jul 98 FY 1999   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): A2 Card Retrofit 1-96-05-4517

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---|-------------------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|   | Qty               | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits   |                   |    | 3258    | 0.8 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 3258 | 0.8 |
| Installation Kits, Nonrecurring Equipment                       |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment, Nonrecurring   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders                                       |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support                                      |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| NOTE: Application costs are included in procurement unit price. |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits                                    |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1997 Eqpt -- Kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1999 Eqpt -- Kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Procurement Cos   |                   |    |         | 0.8 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 0.8 |

**INDIVIDUAL MODIFICATION**

Date February 1998

MODIFICATION TITLE: **A2 ODS Applique 1-98-05-4539**

MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle Systems

**DESCRIPTION / JUSTIFICATION:**

ODS Vehicle Applique For Force XXI and the First Digitized Division, the Bradley Infantry vehicles will be integrated with the Army's Applique'(+) computer system. The integration kit will include mounting the flat panel display, keyboard and CPU inside of the Bradley Turret and interfacing the vehicle systems (Bradley Eyesafe Laser Rangefinder and Position/Navigation System) to to applique'(+) to provide Laser Designation and Steer-to capability. The Bradley Infantry variant will also include an additional display in the hull for squad situational awareness and an external turret mounted display for the Bradley commander's awareness while commanding from a "name tag defiladed position. M2A3 Vehicle Applique M2A3 will incorporate the Army's embedded Battle Command Software into the vehicle's turret computer to ensure interoperability with FBCB2. PM Bradley jointly with PM Abrams is working a common integration approach that consists of utilizing the GCSS common processor card (Power PC-VME card). This will be an additional processor card required for the M2A3 to incorporate EBC.

**DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:** PLANNED ACTUAL

|                            |       |      |
|----------------------------|-------|------|
| Preliminary Design Review: | 7/95  | 7/95 |
| Critical Design Review:    | 1/96  | 1/96 |
| LUT:                       | 9/98  |      |
| IOT&E:                     | 10/99 |      |
| MS III                     | 11/99 |      |

**Installation Schedule:**

| Pr Yr          | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |   |   |   | FY 2000 |   |     |    | FY 2001     |        |    |   |     |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|-----|----|-------------|--------|----|---|-----|
|                | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3   | 4  | 1           | 2      | 3  | 4 |     |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |   |   |   |         |   | 126 | 23 | 23          | 23     |    |   |     |
| <b>Outputs</b> |         |   |   |   |         |   |   |   |         |   |   |   |         |   | 126 | 23 | 23          | 23     | 23 |   |     |
|                | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |   |   |   | FY 2005 |   |     |    | To Complete | Totals |    |   |     |
|                | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3   | 4  |             |        |    |   |     |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |   |   |   |         |   |     |    |             |        |    |   | 195 |
| <b>Outputs</b> |         |   |   |   |         |   |   |   |         |   |   |   |         |   |     |    |             |        |    |   | 195 |

METHOD OF IMPLEMENTATION: Contractor applied ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 12 Months  
 Contract Dates: FY 1997 FY 1998 FY 1999 Jun 99  
 Delivery Date: FY 1997 FY 1998 FY 1999 Jun 00

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): A2 ODS Applique 1-98-05-4539

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996<br>and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |      | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|----------------------|----|---------|----|---------|----|---------|------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty                  | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| ODS Installation Kits                                     |                      |    |         |    |         |    | 69      | 7.0  |         |    |         |    |         |    |         |    |     |    | 69    | 7.0 |      |
| ODS Nonrecurring  |                      |    |         |    |         |    |         | 0.5  |         |    |         |    |         |    |         |    |     |    |       |     | 0.5  |
| A3 Installation Kits                                      |                      |    |         |    |         |    | 126     | 2.9  |         |    |         |    |         |    |         |    |     |    | 126   | 2.9 |      |
| A3 Nonrecurring   |                      |    |         |    |         |    |         | 0.5  |         |    |         |    |         |    |         |    |     |    |       |     | 0.5  |
| Engineering Change Orders                                 |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support                                |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| NOTE: Application costs are included in procurement cost. |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                                  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits                              |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                                     |                      |    |         |    |         |    |         | 10.9 |         |    |         |    |         |    |         |    |     |    |       |     | 10.9 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 58.0        | 5.0     | 1.2     | 0.9     | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.3     | 0.0         | 72.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 58.0        | 5.0     | 1.2     | 0.9     | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.3     | 0.0         | 72.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 58.0        | 5.0     | 1.2     | 0.9     | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.3     | 0.0         | 72.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** Provides for procurement and assembly of tool/shop sets, small arms, and gun mounts. The items are needed by maintenance personnel to maintain weapons and combat vehicles, and by Active Army, National Guard, Reserve and ROTC units to perform combat and training missions. The tool/shop equipment has multi-applications and is essential to all levels of weapon and combat vehicle maintenance.

**JUSTIFICATION:** Required to achieve and sustain required levels of readiness to units providing maintenance support to all small arms (M16,9mm Pistol, 7.62 Machine Gun, etc.), artillery (M102,M119,M198 Howitzers, etc.), air defense (Vulcan, PIVAD, etc.) special weapons, and fire control (Tanks, etc.) organizations. Small Arms Weapons and mounts are required to support AAO shortages, field replacements and training requirements.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>  |      |   | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |      |          |              | P-1 Line Item Nomenclature:<br>ITEMS LESS THAN \$2.0M (WOCV-WTCV)<br>(GL3200) |          |              |      | Weapon System Type: |              | Date:<br>February 1998 |          |
|--|------|---|---|------|----------|--------------|---|----------|--------------|------|---------------------|--------------|------------------------|----------|
| <b>WTCV<br/>Cost Elements</b>                      |      |   | <b>FY 96</b>  |      |          | <b>FY 97</b> |   |          | <b>FY 98</b> |      |                     | <b>FY 99</b> |                        |          |
|  |      |   | TotalCost   | Qty  | UnitCost | TotalCost    | Qty   | UnitCost | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty                    | UnitCost |
|  |      |   | \$000   | Each | \$000    | \$000        | Each  | \$000    | \$000        | Each | \$000               | \$000        | Each                   | \$000    |
| 1. Shot Gun, 12 Gage                               | G124 | A | 256   | 256  | 1        | 94           | 410   |          | 100          | 400  |                     | 100          | 400                    |          |
| 2. Shop Equip, Small Arms<br>Repair, Shelter Mtd   | G337 | A |   |      |          | 158          | 4   | 40       |              |      |                     | 304          | 8                      | 38       |
| 3. Shop Equip, Artillery Maint,<br>FM Set N        | G348 | A |   |      |          | 76           | 2   | 38       |              |      |                     |              |                        |          |
| 4. Tool Set, Instrument and<br>Fire Control FM     | G371 | A | 204   | 10   | 20       | 94           | 4   | 24       | 56           | 2    | 28                  | 105          | 5                      | 21       |
| 5. Shop Set, Small Arms,<br>Field Maint, PCS Set D | G385 | A | 110   | 2    | 55       | 91           | 2   | 46       | 75           | 1    | 75                  |              |                        |          |
| 6. Shop Set, Small Arms<br>FM, Basic               | G723 | A |   |      |          | 14           | 1   | 14       |              |      |                     | 14           | 1                      | 14       |
| 7. XM144 Telescope                                 |      | A | 679   |      |          |              |   |          |              |      |                     |              |                        |          |
| 8. Tool Set, Battalion Maint                       | G427 | A |   |      |          | 269          | 67  | 4        | 471          | 70   | 7                   | 342          | 86                     | 4        |
| 9. Tool Kit, Electronic Sys Maint                  | S380 | A |   |      |          | 103          | 18  | 6        | 488          | 94   | 5                   | 299          | 75                     | 4        |
| <b>TOTAL</b>                                       |      |   | <b>1249</b>   |      |          | <b>899</b>   |   |          | <b>1190</b>  |      |                     | <b>1164</b>  |                        |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 698.5       | 226.9   | 282.0   | 95.4    | 72.8    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5         | 1411.2     |
| Less PY Adv Proc | 16.3        |         |         |         |         |         |         |         |         |         |             | 16.3       |
| Plus CY Adv Proc | 16.3        |         |         |         |         |         |         |         |         |         |             | 16.3       |
| Net Proc (P-1)   | 698.5       | 226.9   | 282.0   | 95.4    | 72.8    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5         | 1411.2     |
| Initial Spares   | 1.6         | 1.9     | 2.4     | 6.4     | 3.6     |         |         |         |         |         |             | 15.9       |
| Total Proc Cost  | 700.1       | 228.8   | 284.4   | 101.8   | 76.4    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5         | 1427.1     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

Funds the procurement of approved modifications to the 155MM M109 Self-Propelled Howitzer. The fiscal program identified herein reflects the economies and efficiencies of a competitive multiyear contract strategy. (See detailed description/justification on following exhibit P-3A)

**COOPERATIVE AGREEMENTS:**

The Government of the United States of America , as represented by the Department of the Army (DA), and the Government of Israel (GOI), as represented by the Ministry of Defense (MOD), agreed to cooperate on a joint development project to improve the M109 Series 155mm Self-Propelled Howitzer in November 1985. This program incorporated already developed items, together with items which were developed under contract, into prototype M109s. DA and MOD supplied their own M109s for prototype work. GOI funding for its share of the program was \$30.7 million over Fiscal Years (FY) 1986-1990. The U.S. Howitzer is currently in the full scale production phase and has been named the M109A6 Paladin. The U.S./Israeli Joint Development Agreement has expired effective with the Paladin Milestone III Full Scale Production Decision . The system developer, BMY, a Division of Harsco Corporation, was awarded a full scale engineering development contract in October 1985, and a low rate production contract in September 1990. In April 1993, FMC Corporation (now known as United Defense, Limited Partnership, Paladin Production Division) won a competitive multiyear procurement contract for full scale production of remaining Paladin requirements during FY 1993-1996 programs.



**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

Appropriation / Budget Activity/Serial No.  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

P-1 Item Nomenclature  
HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)

Program Elements for Code B Items

Code

Other Related Program Elements

| Description                          |                | Fiscal Years |         |         |         |         |         |         |         |     |         |
|--------------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|---------|
| OSIP NO.                             | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total   |
| Howitzer Improvement Program         |                |              |         |         |         |         |         |         |         |     |         |
| 1-81-05-1002                         | unclassified   | 1,207.4      | 95.4    | 66.5    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 0.0 | 1,395.3 |
| Chlorofluorocarbon (CFC) Elimination |                |              |         |         |         |         |         |         |         |     |         |
| 1-96-05-1003                         | unclassified   | 0.0          | 0.0     | 6.3     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 9.5 | 15.8    |
| Totals                               |                | 1,207.4      | 95.4    | 72.8    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5 | 1,411.1 |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |
|                                      |                |              |         |         |         |         |         |         |         |     |         |

| INDIVIDUAL MODIFICATION   |        |                  |    |    |    |                                 |    |    |    | Date     |    | February 1998 |    |                             |   |   |   |           |        |   |   |
|---|--------|------------------|----|----|----|---------------------------------|----|----|----|----------|----|---------------|----|-----------------------------|---|---|---|-----------|--------|---|---|
| <b>MODIFICATION TITLE:</b> Howitzer Improvement Program 1-81-05-1002  |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>MODELS OF SYSTEMS AFFECTED:</b> Howitzer, MED Sp Ft 155mm M109 Ser (Mod) (MYP)   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>DESCRIPTION / JUSTIFICATION:</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <p>The M109A6 Paladin, approved for full scale production, has been designed to upgrade the M109A2/A3 Howitzer's responsiveness, effectiveness, survivability; and Reliability, Availability, and Maintainability-Durability (RAM-D). This meets the user's urgent need for a product improved system that satisfies the deficiencies cited in these areas by the Mission Element Need Statement (MENS), approved by the Secretary of Defense in December 1980. The production phase of the program involves a combined effort between Letterkenny Army Depot and the contractor. M109A2/A3 Howitzers from CONUS and OCONUS field units are being shipped to Letterkenny Army Depot. Letterkenny removes traverse mechanism, disassembles the howitzer, reconditions turret components to be reset in the new turret, and overhauls/ modifies the chassis to the Paladin configuration. The reconditioned turret components, and the overhauled/modified chassis with the new M284 Cannon and M182 Gun Mount manufactured by Watervliet and Rock Island Arsenal, respectively, are shipped to the contractor for final integration and assembly, and acceptance testing. The acquisition strategy for FY89/90-FY92 called for sole source contracts. An FY93-FY96 competitive multiyear production contract was awarded to UDLP in April 1993. In April 1997, a contract modification was awarded to the existing multiyear production contract for an additional 37 M109A6 Paladins. An FY98 contract option for 36 vehicles was awarded in November 1997.</p> |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <p>The M109A6 was approved for entry into full scale development in November 1984. At that time, DA decided to modify M109A2/A3 Howitzers to a HIP configuration. It was decided to merge the Howitzer Extended Life Program (HELP) into the HIP where kits from both programs would be applied to the M109A2/A3 Howitzer. The improved 155mm Self-Propelled Howitzer was approved for Type-Classification Low Rate Production (TC-LRP) and designated the M109A6 Howitzer following a Milestone III-A ASARC on 7 February 1990. In March 1993 a Milestone III Pre-ASARC review was chaired by the Assistant Secretary of the Army for Research, Development and Acquisition, and the M109A6 Paladin was approved for Type-Classification-Standard and full rate production and deployment. This Milestone III is documented in Acquisition Decision Memorandum dated 9 April 1993. The Paladin production program is within schedule and, as of February 1998, successfully fielded 487 M109A6 Howitzers and all associated items of equipment. All major development milestones for the M109A6 Paladin Howitzer have been successfully completed.</p>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>Installation Schedule:</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
|   | Pr Yr  | FY 1997          |    |    |    | FY 1998                         |    |    |    | FY 1999  |    |               |    | FY 2000                     |   |   |   | FY 2001   |        |   |   |
|   | Totals | 1                | 2  | 3  | 4  | 1                               | 2  | 3  | 4  | 1        | 2  | 3             | 4  | 1                           | 2 | 3 | 4 | 1         | 2      | 3 | 4 |
| <b>Inputs</b>   | 555    | 54               | 54 | 54 | 54 | 54                              | 54 | 53 | 18 |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>Outputs</b>  | 417    | 49               | 54 | 55 | 55 | 54                              | 54 | 54 | 54 | 41       | 18 | 18            | 18 | 9                           |   |   |   |           |        |   |   |
|   |        | FY 2002          |    |    |    | FY 2003                         |    |    |    | FY 2004  |    |               |    | FY 2005                     |   |   |   | To        | Totals |   |   |
|   |        | 1                | 2  | 3  | 4  | 1                               | 2  | 3  | 4  | 1        | 2  | 3             | 4  | 1                           | 2 | 3 | 4 | Complete  |        |   |   |
| <b>Inputs</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           | 950    |   |   |
| <b>Outputs</b>  |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           | 950    |   |   |
| <b>METHOD OF IMPLEMENTATION:</b>  |        | Depot/Contractor |    |    |    | <b>ADMINISTRATIVE LEADTIME:</b> |    |    |    | 1 Months |    |               |    | <b>PRODUCTION LEADTIME:</b> |   |   |   | 19 Months |        |   |   |
| <b>Contract Dates:</b>  |        | FY 1997 Apr 97   |    |    |    | FY 1998 Nov 97                  |    |    |    | FY 1999  |    |               |    |                             |   |   |   |           |        |   |   |
| <b>Delivery Date:</b>   |        | FY 1997 Nov 98   |    |    |    | FY 1998 Jun 99                  |    |    |    | FY 1999  |    |               |    |                             |   |   |   |           |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Howitzer Improvement Program 1-81-05-1002

FINANCIAL PLAN: (\$ in Millions)

|                             | FY 1996 and Prior |        | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |    | TC  |    | TOTAL |     |        |
|-----------------------------|-------------------|--------|---------|------|---------|------|---------|------|---------|-----|---------|-----|---------|-----|---------|----|-----|----|-------|-----|--------|
|                             | Qty               | \$     | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty | \$ | Qty   | \$  |        |
| RDT&E                       |                   | 149.4  |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 149.4  |
| PROCUREMENT                 |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| Kit Quantity                | 877               |        | 37      |      | 36      |      |         |      |         |     |         |     |         |     |         |    |     |    |       | 950 |        |
| Equipment                   |                   | 698.8  |         | 40.1 |         | 37.3 |         | 0.5  |         | 4.9 |         | 5.5 |         | 0.1 |         |    |     |    |       |     | 787.2  |
| Equipment, Nonrecurring     |                   | 233.3  |         | 4.5  |         | 4.2  |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 242.0  |
| Engineering Change Orders   |                   | 163.5  |         | 20.7 |         | 10.5 |         | 3.3  |         | 0.4 |         |     |         |     |         |    |     |    |       |     | 198.4  |
| Data                        |                   | 11.7   |         | 2.3  |         | 0.5  |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 14.5   |
| Training Equipment          |                   | 14.1   |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 14.1   |
| Vehicular Intercom System   |                   | 9.2    |         | 0.4  |         | 0.4  |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 10.0   |
| Other                       |                   | 4.4    |         | 0.7  |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 5.1    |
| Project Management Admin    |                   | 9.2    |         | 4.7  |         | 3.0  |         | 2.8  |         |     |         |     |         |     |         |    |     |    |       |     | 19.7   |
| Fielding                    |                   | 10.0   |         | 10.4 |         | 8.5  |         | 4.5  |         | 3.8 |         |     |         |     |         |    |     |    |       |     | 37.2   |
| Depot Maint Premodification |                   |        |         |      |         |      |         | 0.2  |         |     |         |     |         |     |         |    |     |    |       |     | 0.2    |
| Installation of Hardware    |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 1996 & Prior--Kits (877) | 716               | 53.2   | 161     | 9.2  |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       | 877 | 62.4   |
| FY 1997 Eqpt -- Kits (37)   |                   |        | 37      | 2.4  |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       | 37  | 2.4    |
| FY 1998 Eqpt -- Kits (36)   |                   |        |         |      | 36      | 2.1  |         |      |         |     |         |     |         |     |         |    |     |    |       | 36  | 2.1    |
| FY 1999 Eqpt -- Kits        |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2000 Eqpt -- kits        |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2001 Eqpt -- kits        |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2002 Eqpt -- kits        |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2003 Eqpt -- kits        |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| TC Equip-Kits               |                   |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| Total Installment           | 716               | 53.2   | 198     | 11.6 | 36      | 2.1  |         |      |         |     |         |     |         |     |         |    |     |    |       | 950 | 66.9   |
| Total Procurement Cos       |                   | 1207.4 |         | 95.4 |         | 66.5 |         | 11.3 |         | 9.1 |         | 5.5 |         | 0.1 |         |    |     |    |       |     | 1395.3 |

| INDIVIDUAL MODIFICATION   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   | Date | February 1998 |        |   |   |
|---|--------|----------|---|---|---|---------------------------------|---|---|---|----------|-----|-----|-----|-----------------------------|---|---|------|---------------|--------|---|---|
| <b>MODIFICATION TITLE:</b> Chlorofluorocarbon (CFC) Elimination 1-96-05-1003  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
| <b>MODELS OF SYSTEMS AFFECTED:</b> M109A6 Paladin Howitzer  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
| <b>DESCRIPTION / JUSTIFICATION:</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
| References: DOD Directive 6050.0; DA Policy Letter 200.90-1; AMC Regulation 70-68; Montreal Protocol of 1986.<br>The previous references mandate the replacement of R-12 Freon, used in the current M109A6 Paladin's Microclimatic Conditioning System (MCS), with a non-chlorofluorocarbon (CFC) substitute. |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
| <b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
| Request For Proposal - accomplished 3Q FY 97; Vendor Selected 1Q FY 98; Joint Government/Contractor Test and Evaluation -planned 3Q FY 98; IPR Production Decision/Contract Modification - planned 4Q FY 98; and TDP Available - planned 4Q FY 98.  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
| <b>Installation Schedule:</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               |        |   |   |
|   | Pr Yr  | FY 1997  |   |   |   | FY 1998                         |   |   |   | FY 1999  |     |     |     | FY 2000                     |   |   |      | FY 2001       |        |   |   |
|   | Totals | 1        | 2 | 3 | 4 | 1                               | 2 | 3 | 4 | 1        | 2   | 3   | 4   | 1                           | 2 | 3 | 4    | 1             | 2      | 3 | 4 |
| <b>Inputs</b>   |        |          |   |   |   |                                 |   |   |   | 20       | 105 | 120 | 120 |                             |   |   |      |               |        |   |   |
| <b>Outputs</b>  |        |          |   |   |   |                                 |   |   |   | 6        | 66  | 84  | 101 | 108                         |   |   |      |               |        |   |   |
|   |        | FY 2002  |   |   |   | FY 2003                         |   |   |   | FY 2004  |     |     |     | FY 2005                     |   |   |      | To            | Totals |   |   |
|   |        | 1        | 2 | 3 | 4 | 1                               | 2 | 3 | 4 | 1        | 2   | 3   | 4   | 1                           | 2 | 3 | 4    | Complete      |        |   |   |
| <b>Inputs</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               | 365    |   |   |
| <b>Outputs</b>  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |   |      |               | 365    |   |   |
| <b>METHOD OF IMPLEMENTATION:</b>  |        | MWO Team |   |   |   | <b>ADMINISTRATIVE LEADTIME:</b> |   |   |   | 9 Months |     |     |     | <b>PRODUCTION LEADTIME:</b> |   |   |      | 5 Months      |        |   |   |
| <b>Contract Dates:</b>  |        | FY 1997  |   |   |   | FY 1998                         |   |   |   | Jul 98   |     |     |     | FY 1999                     |   |   |      |               |        |   |   |
| <b>Delivery Date:</b>   |        | FY 1997  |   |   |   | FY 1998                         |   |   |   | Dec 98   |     |     |     | FY 1999                     |   |   |      |               |        |   |   |

| INDIVIDUAL MODIFICATION          |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | Date  |     | February 1998 |     |      |
|----------------------------------|----------------------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---|-----|---------------|-----|------|
| MODIFICATION TITLE (Cont):       |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | Chlorofluorocarbon (CFC) Elimination 1-96-05-1003 |     |               |     |      |
| FINANCIAL PLAN: (\$ in Millions) |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
|                                  | FY 1996<br>and Prior |    | FY 1997 |    | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |     | TOTAL         |     |      |
|                                  | Qty                  | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty   | \$  | Qty           | \$  |      |
| RDT&E                            |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| PROCUREMENT                      |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| Kit Quantity                     |                      |    |         |    | 365     |     |         |    |         |    |         |    |         |    |         |    | 549   |     | 914           |     |      |
| Hardware                         |                      |    |         |    |         | 4.7 |         |    |         |    |         |    |         |    |         |    |   | 7.9 |               |     | 12.6 |
| Testing                          |                      |    |         |    |         | 0.6 |         |    |         |    |         |    |         |    |         |    |   |     |               |     | 0.6  |
| Installation of Hardware         |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 1996 & Prior Eqpt -- Kits     |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 1997 Eqpt -- Kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 1998 Eqpt -- Kits             |                      |    |         |    |         | 1.0 | 257     |    | 108     |    |         |    |         |    |         |    |   |     |               | 365 | 1.0  |
| FY 1999 Eqpt -- Kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 2000 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 2001 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 2002 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| FY 2003 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |     |      |
| TC Equip-Kits                    |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | 549   | 1.6 | 549           | 1.6 |      |
| Total Installment                |                      |    |         |    |         | 1.0 | 257     |    | 108     |    |         |    |         |    |         |    | 549   | 1.6 | 914           | 2.6 |      |
| Total Procurement Cos            |                      |    |         |    |         | 6.3 |         |    |         |    |         |    |         |    |         |    |   | 9.5 |               |     | 15.8 |

**Exhibit P-40, Budget Item Justification Sheet**

Date:

February 1998

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles

P-1 Item Nomenclature:

ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)

Program Elements for Code B Items:

Code:

A

Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 2034    | 1500    | 673     | 2154    | 1746    |         |         |             | 8107       |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 20.3    | 14.7    | 6.5     | 18.4    | 17.8    | 0.0     | 0.0     | 0.0         | 77.7       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   |             | 0.0     | 0.0     | 20.3    | 14.7    | 6.5     | 18.4    | 17.8    | 0.0     | 0.0     | 0.0         | 77.7       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 20.3    | 14.7    | 6.5     | 18.4    | 17.8    | 0.0     | 0.0     | 0.0         | 77.7       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M240B Machine Gun is a ground version of the M240 Machine Gun, the 7.62mm Medium Machine Gun class weapon designed as a coaxial/pintle-mounted weapon for tanks and light armored vehicles. The M240B is an air cooled, link-belt fed, gas operated weapon. The weapon features fixed head space, which permits rapid changing of the barrels. The principle difference between the M240 and the M240B is the addition of a flash suppressor, front sight, carrying handle for the barrel, buttstock, pistol grip, bipod, heat shield and rear sight assembly. The M240B Machine Gun may also be tripod-mounted and used in conjunction with a traversing and elevating mechanism and a flex mount pintle.

**JUSTIFICATION:** The M240B Medium Machine Gun is an infantry version of the M240 Armored Machine Gun intended to replace the M60 Series Machine Gun in light infantry, mechanized infantry, and combat engineer units. The US Army has identified a need to upgrade its current inventory of 7.62mm Medium Machine Guns in order to provide the dismounted infantryman a more reliable, accurate, and lethal medium machine gun to suppress and destroy enemy personnel, lightly armored vehicles, and fortified positions.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>    |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |             |                   | P-1 Line Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240<br>SERIES (G13000) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|--|----------|---|-------------|-------------------|--|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| <b>WTCV<br/>Cost Elements</b>                        | ID<br>CD | <b>FY 96</b>  |             |                   | <b>FY 97</b>   |             |                   | <b>FY 98</b>        |             |                   | <b>FY 99</b>           |             |                   |
|  |          | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| 1. Hardware (Incls Flex Mount & Blank Firing Device) | A        |   |             |                   | 17102  | 2034        | 8                 | 13594               | 1500        | 9                 | 5623                   | 673         | 8                 |
| 2. Engineering Support<br>- In House Support         |          |   |             |                   | 1553   |             |                   | 450                 |             |                   | 262                    |             |                   |
| 3. Quality Assurance (ARDEC)                         |          |   |             |                   | 117  |             |                   | 63                  |             |                   | 41                     |             |                   |
| 4. Integrated Logistics Support                      |          |   |             |                   | 79   |             |                   | 79                  |             |                   | 61                     |             |                   |
| 5. Engineering Studies                               |          |   |             |                   | 589  |             |                   |                     |             |                   |                        |             |                   |
| 6. Engineering Change Proposals                      |          |   |             |                   | 428  |             |                   | 342                 |             |                   | 140                    |             |                   |
| 7. Testing (TECOM)                                   |          |   |             |                   |  |             |                   |                     |             |                   | 90                     |             |                   |
| 8. Fielding  |          |   |             |                   | 423  |             |                   | 164                 |             |                   | 279                    |             |                   |
| <b>TOTAL</b>   |          |   |             |                   | <b>20291</b>   |             |                   | <b>14692</b>        |             |                   | <b>6496</b>            |             |                   |

| Exhibit P-5a, Budget Procurement History and Planning   |                                      |                             |                 |            |                           |             |                    |   |                        | Date:             |  |
|---|--------------------------------------|-----------------------------|-----------------|------------|---------------------------|-------------|--------------------|---|------------------------|-------------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and<br>Other Combat Vehicles   |                                      |                             |                 |            | Weapon System Type:       |             |                    | P-1 Line Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |                        |                   |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location              | Contract Method<br>and Type | Location of PCO | Award Date | Date of First<br>Delivery | QTY<br>Each | Unit Cost<br>\$000 | Specs<br>Avail<br>Now?  | Date<br>Revsn<br>Avail | RFP Issue<br>Date |  |
| Hardware (Incls Flex Mount & Blank Firing Device)   |                                      |                             |                 |            |                           |             |                    |   |                        |                   |  |
| FY 97   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(1)            | ACALA           | Sep-97     | Mar-98                    | 2034        | 8                  | Yes   | No                     |                   |  |
| FY 98   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(2)            | ACALA           | Apr-98     | Oct-99                    | 673         | 9                  | Yes   | No                     |                   |  |
|   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(3)            | ACALA           | Apr-98     | Feb-00                    | 827         | 8                  | Yes   | No                     |                   |  |
| FY 99   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(3)            | ACALA           | Jan-99     | Jul-00                    | 673         | 8                  | Yes   | No                     |                   |  |
| <b>REMARKS:</b> The M240 contract was established as a 3-year multiyear contract (FY97,99,00). FY98 Congressional funding will be used to exercise the 2nd and part of the 3rd years of the multiyear contract. |                                      |                             |                 |            |                           |             |                    |   |                        |                   |  |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                      |       |      |                  |                       |                     | P-1 Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |              |                 |              |     |              |              |  |     |     |     |     |     |     | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|---------------------------------------|--------------------------------------|-------|------|------------------|-----------------------|---------------------|--|--------------|-----------------|--------------|-----|--------------|--------------|--|-----|-----|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|-----------|---|------|
| COST ELEMENTS                         | MFR                                  | FY    | SERV | PROC QTY<br>Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96   |              |                 |              |     |              |              |  |     |     |     |     |     |     | Fiscal Year 97         |     |     |     |     |     |     |     |     |     |  |  |  |  | L A T E R |   |      |
|                                       |                                      |       |      |                  |                       |                     | Calendar Year 96   |              |                 |              |     |              |              |  |     |     |     |     |     |     | Calendar Year 97       |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       |      |                  |                       |                     | OCT  | NOV          | DEC             | JAN          | FEB | MAR          | APR          | MAY  | JUN | JUL | AUG | SEP | OCT | NOV | DEC                    | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |  |  |  |           |   |      |
| Hardware (Incls Flex Mount & Blank)   | 1                                    | FY 97 | A    | 2034             | 0                     | 2034                |  |              |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           | A | 2034 |
|                                       | 1                                    | FY 97 | FMS  | 278              | 0                     | 278                 |  |              |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           | A | 278  |
|                                       | 1                                    | FY 98 | A    | 673              | 0                     | 673                 |  |              |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   | 673  |
|                                       | 1                                    | FY 98 | A    | 827              | 0                     | 827                 |  |              |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   | 827  |
|                                       | 1                                    | FY 99 | A    | 673              | 0                     | 673                 |  |              |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   | 673  |
| TOTAL                                 |                                      |       |      | 4485             | 0                     | 4485                |  |              |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   | 4485 |
|                                       |                                      |       |      |                  |                       |                     | OCT  | NOV          | DEC             | JAN          | FEB | MAR          | APR          | MAY  | JUN | JUL | AUG | SEP | OCT | NOV | DEC                    | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |  |  |  |           |   |      |
| MFR                                   | NAME / LOCATION                      |       |      | PRODUCTION RATES |                       |                     | REACHED  | MFR Number   | ADMIN LEAD TIME |              |     | MFR          | TOTAL        | REMARKS<br>FY97 long admin leadtime due to extended negotiations with FNMI.<br>FY97 delivery schedule extended to prevent a break in production. |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       | MIN. | 1-8-5            | MAX.                  | D +                 |  | Prior 1 Oct. |                 | After 1 Oct. |     | After 1 Oct. | After 1 Oct. |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
| 1                                     | FN Manufacturing, Inc., Columbia, SC |       | 90   | 200              | 350                   | 10                  | 1  | INITIAL      | 7               | 11           | 7   | 18           |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       |      |                  |                       |                     |  | REORDER      | 7               | 6            | 19  | 25           |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       |      |                  |                       |                     |  | INITIAL      |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       |      |                  |                       |                     |  | REORDER      |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       |      |                  |                       |                     |  | INITIAL      |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |
|                                       |                                      |       |      |                  |                       |                     |  | REORDER      |                 |              |     |              |              |  |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |  |  |  |  |           |   |      |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                      |       |       |               |                       |                     | P-1 Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |     |              |     |              |              |   |     |     |     |     |     |                  |     | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|---------------------------------------|--------------------------------------|-------|-------|---------------|-----------------------|---------------------|--|-----|--------------|-----|--------------|--------------|---|-----|-----|-----|-----|-----|------------------|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|------|--|--|--|
| COST ELEMENTS                         | MFR                                  | FY    | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98   |     |              |     |              |              |   |     |     |     |     |     | Fiscal Year 99   |     |                        |     |     |     |     |     |     |     |     |     | L A T E R |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | Calendar Year 98   |     |              |     |              |              |   |     |     |     |     |     | Calendar Year 99 |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | OCT  | NOV | DEC          | JAN | FEB          | MAR          | APR   | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                    | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |     |     |     |     |     |     |     |      |  |  |  |
| Hardware (Incls Flex Mount & Blank)   | 1                                    | FY 97 | A     | 2034          |                       | 2034                |  |     |              |     |              |              | 100   | 100 | 100 | 100 | 100 | 100 | 100              | 100 | 100                    | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100       | 100 | 100 | 100 | 100 | 175 | 175 | 84  |      |  |  |  |
|                                       | 1                                    | FY 97 | FMS   | 278           |                       | 278                 |  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     | 91  | 187  |  |  |  |
|                                       | 1                                    | FY 98 | A     | 673           |                       | 673                 |  |     |              |     |              |              | A   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     | 673 |      |  |  |  |
|                                       | 1                                    | FY 98 | A     | 827           |                       | 827                 |  |     |              |     |              |              | A   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     | 827 |      |  |  |  |
|                                       | 1                                    | FY 99 | A     | 673           |                       | 673                 |  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     | A   |     |     |     |     |     |     |     |           |     |     |     |     |     |     | 673 |      |  |  |  |
| <b>TOTAL</b>                          |                                      |       |       | <b>4485</b>   |                       | <b>4485</b>         |  |     |              |     |              |              | 100   | 100 | 100 | 100 | 100 | 100 | 100              | 100 | 100                    | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100       | 100 | 100 | 100 | 100 | 175 | 175 | 175 | 2360 |  |  |  |
|                                       |                                      |       |       |               |                       |                     | OCT  | NOV | DEC          | JAN | FEB          | MAR          | APR   | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                    | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |     |     |     |     |     |     |     |      |  |  |  |
| MFR                                   | PRODUCTION RATES                     |       |       |               | REACHED               | MFR                 | ADMIN LEAD TIME  |     |              |     | MFR          | TOTAL        | REMARKS<br>FY97 long admin leadtime due to extended negotiations with FNMI. FY97 delivery schedule extended to prevent a break in production. |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       | NAME / LOCATION                      | MIN.  | 1-8-5 | MAX.          | D +                   | Number              | Prior 1 Oct.   |     | After 1 Oct. |     | After 1 Oct. | After 1 Oct. |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
| 1                                     | FN Manufacturing, Inc., Columbia, SC | 90    | 200   | 350           | 10                    | 1                   | INITIAL  | 7   | 11           | 7   | 18           |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | REORDER  | 7   | 6            | 19  | 25           |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | INITIAL  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | REORDER  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | INITIAL  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | REORDER  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | INITIAL  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |
|                                       |                                      |       |       |               |                       |                     | REORDER  |     |              |     |              |              |   |     |     |     |     |     |                  |     |                        |     |     |     |     |     |     |     |     |     |           |     |     |     |     |     |     |     |      |  |  |  |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                      |       |      |                  |                       |                     | P-1 Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |            |                 |              |              |              |   |         |     |     |     |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|--------------------------------------|-------|------|------------------|-----------------------|---------------------|--|------------|-----------------|--------------|--------------|--------------|---|---------|-----|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR                                  | FY    | SERV | PROC QTY Each    | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00   |            |                 |              |              |              |   |         |     |     |     |     | Fiscal Year 01   |                        |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |                                      |       |      |                  |                       |                     | Calendar Year 00   |            |                 |              |              |              |   |         |     |     |     |     | Calendar Year 01 |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     | OCT  | NOV        | DEC             | JAN          | FEB          | MAR          | APR   | MAY     | JUN | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| Hardware (Incls Flex Mount & Blank)   | 1                                    | FY 97 | A    | 2034             | 2034                  |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                                    | FY 97 | FMS  | 278              | 91                    | 187                 | 175  | 12         |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                                    | FY 98 | A    | 673              |                       | 673                 | 63   | 175        | 175             | 175          | 85           |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                                    | FY 98 | A    | 827              |                       | 827                 |  |            |                 |              | 90           | 175          | 175   | 175     | 37  |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                                    | FY 99 | A    | 673              |                       | 673                 |  |            |                 |              |              |              |   | 138     | 175 | 175 | 175 | 10  |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
| TOTAL                                 |                                      |       |      | 4485             | 2125                  | 2360                | 238  | 187        | 175             | 175          | 175          | 175          | 175   | 175     | 175 | 175 | 175 | 10  |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
| MFR                                   | NAME / LOCATION                      |       |      | PRODUCTION RATES |                       |                     | REACHED  | MFR Number | ADMIN LEAD TIME |              |              | MFR          | TOTAL   | REMARKS |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      | MIN.             | 1-8-5                 | MAX.                | D +  |            | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | FN Manufacturing, Inc., Columbia, SC |       |      | 90               | 200                   | 350                 | 10   | 1          | 7               | 11           | 7            | 18           | FY97 long admin leadtime due to extended negotiations with FNMI.  |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            | 7               | 6            | 19           | 25           | FY97 delivery schedule extended to prevent a break in production. |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                                      |       |      |                  |                       |                     |  |            |                 |              |              |              |   |         |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (G80718)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 317         | 97      | 105     | 80      | 98      | 73      | 103     | 163     | 181     | 142     | 887         | 2246       |
| Gross Cost       | 320.1       | 137.1   | 134.6   | 250.9   | 231.0   | 285.8   | 295.3   | 430.0   | 457.8   | 391.8   | 2328.3      | 5262.6     |
| Less PY Adv Proc |             |         |         |         |         |         |         | 37.5    | 42.0    | 33.0    | 151.3       | 263.8      |
| Plus CY Adv Proc |             |         |         |         |         |         | 60.6    | 38.3    | 13.6    |         | 151.3       | 263.8      |
| Net Proc (P-1)   | 320.1       | 137.1   | 134.6   | 250.9   | 231.1   | 285.9   | 355.9   | 430.8   | 429.4   | 358.8   | 2328.3      | 5262.8     |
| Initial Spares   |             |         | 4.9     | 2.3     | 0.3     | 7.1     | 9.3     | 11.8    | 11.0    | 11.2    | 83.9        | 141.8      |
| Total Proc Cost  | 320.1       | 137.1   | 139.5   | 253.2   | 231.4   | 293.0   | 365.2   | 442.6   | 440.4   | 370.0   | 2412.2      | 5404.6     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 1.0         | 1.4     | 1.3     | 3.2     | 2.4     | 4.0     | 3.0     | 2.7     | 2.6     | 2.8     | 2.7         | 2.4        |

**DESCRIPTION:** The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

**JUSTIFICATION:** The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers and 35 A3's in FY97, 80 A0-A2ODS and 18 A3's in FY98, and all A3's thereafter.

A four year multi-year contract is planned for FY's 00-03.

**Exhibit P-40C Budget Item Justification Sheet**

Date

February 1998

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

P-1 Item Nomenclature

BRADLEY BASE SUSTAINMENT (G80718)

Program Elements for Code B Items

Code

Other Related Program Elements

| A3 Advanced Procurement Detail (in Mils): | Fiscal Year | 2000 | 2001   | 2002   | 2003   |
|---|-------------|------|--------|--------|--------|
| <b>FY TOA</b>                             |             |      |        |        |        |
| FY2000 for FY2001 (memo)                  |             | 37.5 |        |        |        |
| FY2000 for FY2002 (memo)                  |             | 20.3 |        |        |        |
| FY2000 for FY2003 (memo)                  |             | 2.8  |        |        |        |
| FY2001 (memo)                             |             |      | (37.5) |        |        |
| FY2001 for FY2002 (memo)                  |             |      | 21.7   |        |        |
| FY2001 for FY2003 (memo)                  |             |      | 16.6   |        |        |
| FY2002 (memo)                             |             |      |        | (42.0) |        |
| FY2002 for FY2003 (memo)                  |             |      |        | 13.6   |        |
| FY2003 (memo)                             |             |      |        |        | (33.0) |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |               |      | P-1 Line Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (G80718) |               |      | Weapon System Type: |               |      | Date:<br>February 1998 |               |      |          |
|---|--|--|---------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b>  |      |  | <b>FY 97</b>  |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b>  |      |          |
|   |  | CD   | TotalCost     | Qty  | UnitCost   | TotalCost     | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost     | Qty  | UnitCost |
|   |  |  | \$000         | Each | \$000  | \$000         | Each | \$000               | \$000         | Each | \$000                  | \$000         | Each | \$000    |
| BRADLEY BASE SUSTAINMENT (M2A2/)                  |  |  | 134613        |      |  | 75042         |      |                     | 115165        |      |                        | 13280         |      |          |
| BRADLEY BASE SUSTAINMENT (M2A3)                   |  |  |               |      |  | 175878        |      |                     | 115878        |      |                        | 272564        |      |          |
| <b>TOTAL</b>                                      |  |  | <b>134613</b> |      |  | <b>250920</b> |      |                     | <b>231043</b> |      |                        | <b>285844</b> |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2/) (G80716)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 317         | 97      | 105     | 45      | 80      |         |         |         |         |         |             | 644        |
| Gross Cost       | 320.1       | 137.1   | 134.6   | 75.0    | 115.2   | 13.3    | 3.3     | 6.3     | 0.0     | 0.0     | 0.0         | 804.8      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 320.1       | 137.1   | 134.6   | 75.0    | 115.2   | 13.3    | 3.3     | 6.3     | 0.0     | 0.0     | 0.0         | 804.8      |
| Initial Spares   |             |         | 4.9     | 2.3     |         |         |         |         |         |         |             | 7.2        |
| Total Proc Cost  | 320.1       | 137.1   | 139.5   | 77.3    | 115.2   | 13.3    | 3.3     | 6.3     | 0.0     | 0.0     | 0.0         | 812.0      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 1.0         | 1.4     | 1.3     | 1.7     | 1.4     |         |         |         |         |         |             | 1.3        |

DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers FY97, and 80 A0-A2ODS in FY 98.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |               |      | P-1 Line Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (M2A2/<br>(G80716) |              |      | Weapon System Type: |               |      | Date:<br>February 1998 |              |      |          |
|---|--|--|---------------|------|--|--------------|------|---------------------|---------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b>  |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost     | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000         | Each | \$000  | \$000        | Each | \$000               | \$000         | Each | \$000                  | \$000        | Each | \$000    |
| 1. VEHICLE  |  |  | 60371         | 105  | 575  | 30600        | 45   | 680                 | 49867         | 80   | 623                    |              |      |          |
| 2. T2SS   |  |  | 8886          | 75   | 118  |              |      |                     | 20000         | 80   | 250                    |              |      |          |
| 3. Engine   |  |  | 4965          | 105  | 47   |              |      |                     | 4000          | 80   | 50                     |              |      |          |
| 4. Track  |  |  | 1933          | 105  | 18   | 829          | 45   | 18                  | 1497          | 80   | 19                     |              |      |          |
| 5. Other GFE (Buy)                                |  |  | 6781          | 105  | 65   | 4832         | 45   | 107                 | 8827          | 80   | 110                    |              |      |          |
| 6. Other GFE ( Reman)                             |  |  | 11109         | 105  | 106  | 5043         | 45   | 112                 | 9107          | 80   | 114                    |              |      |          |
| 7. STINGER Kits                                   |  |  |               |      |  | 20464        | 99   | 207                 |               |      |                        |              |      |          |
| <b>SUBTOTAL</b>                                   |  |  | <b>94045</b>  |      |  | <b>61768</b> |      |                     | <b>93298</b>  |      |                        |              |      |          |
| 8. Govt Test & Eval                               |  |  | 340           |      |  |              |      |                     |               |      |                        | 1787         |      |          |
| 9. Engineering-Contractor                         |  |  | 17845         |      |  | 5732         |      |                     | 4100          |      |                        | 4553         |      |          |
| 10. Engineering-Government                        |  |  | 4270          |      |  |              |      |                     |               |      |                        |              |      |          |
| 11. Project Management Admin                      |  |  | 2644          |      |  |              |      |                     |               |      |                        |              |      |          |
| 12. Fielding                                      |  |  | 7842          |      |  | 7542         |      |                     | 3036          |      |                        | 6940         |      |          |
| 13. Reimbursable Matrix Supt                      |  |  | 2155          |      |  |              |      |                     |               |      |                        |              |      |          |
| <b>SUBTOTAL</b>                                   |  |  | <b>35096</b>  |      |  | <b>13274</b> |      |                     | <b>7136</b>   |      |                        | <b>13280</b> |      |          |
| 14. PSE   |  |  | 5472          |      |  |              |      |                     | 14731         |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>134613</b> |      |  | <b>75042</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |
| <b>Gross P-1 End Cost</b>                         |  |  | <b>134613</b> |      |  | <b>75042</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |
| Less: Prior Year Adv Proc (by PY FY)              |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| <b>Net P-1 Full Funding Cost</b>                  |  |  | <b>134613</b> |      |  | <b>75042</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |
| Plus: P-1 CY Adv Proc                             |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| Other Non P-1 Costs                               |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| Initial Spares                                    |  |  | 4854          |      |  | 2271         |      |                     |               |      |                        |              |      |          |
| Mods  |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>139467</b> |      |  | <b>77313</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |



**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
 Weapon System Type: Combat Vehicles  
 P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2/) (G80716)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. VEHICLE</b>                  |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | UDLP, York PA           | SS/FFP                   | TACOM           | Jan-96     | May-97                 | 105      | 575             | YES              | NO               |                |
| FY 97                              | UDLP, York PA           | SS/FFP                   | TACOM           | Jul-97     | Nov-97                 | 45       | 680             | YES              | NO               |                |
| FY 98                              | UDLP, York PA           | SS/FFP                   | TACOM           | Aug-98     | Nov-99                 | 80       | 623             | YES              | NO               |                |
| <b>2. T2SS</b>                     |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | HAC, LaGrange GA        | SS/FFP                   | AMCOM           | Feb-96     | Mar-97                 | 75       | 118             | YES              | NO               |                |
| FY 98                              | HAC, LaGrange GA        | SS/FFP                   | AMCOM           | Nov-98     | Aug-99                 | 80       | 250             | YES              | NO               |                |
| <b>3. Engine</b>                   |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | Cummins, Columbus IN    | SS/FFP                   | TACOM           | Jan-96     | Mar-96                 | 105      | 47              | YES              | NO               |                |
| FY 98                              | Cummins, Columbus IN    | SS/FFP                   | TACOM           | Aug-98     | Nov-98                 | 80       | 50              | YES              | NO               |                |
| <b>4. Track</b>                    |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | Goodyear, Akron OH      | SS/FFP                   | TACOM           | Feb-96     | Feb-97                 | 105      | 18              | YES              | NO               |                |
| FY 97                              | Goodyear, Akron OH      | SS/FFP                   | TACOM           | Sep-97     | Oct-97                 | 45       | 18              | YES              | NO               |                |
| FY 98                              | Goodyear, Akron OH      | SS/FFP                   | TACOM           | Sep-98     | Sep-99                 | 80       | 19              | YES              | NO               |                |
| <b>7. STINGER Kits</b>             |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | Boeing Corp             | SS/FFP                   | AMCOM           | Mar-97     | Nov-97                 | 99       | 207             | YES              | NO               |                |

REMARKS:



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |                  |                  |                     |                                | P-1 Item Nomenclature:                    | Date:            |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|---------------------------------------|-----------------|------------------|------------------|---------------------|--------------------------------|---|------------------|--------------|---------------------|-----------------------|---------|----|----|----|----|---|---|---|------------------|---|---|---|---|---|---|---|---|---|---|---|-----------------------|--|----|--|
|                                       |                 |                  |                  |                     |                                | BRADLEY BASE SUSTAINMENT (M2A2/) (G80716) | February 1998    |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
| COST ELEMENTS                         | M<br>F<br>R     | FY               | S<br>E<br>R<br>V | PROC<br>QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT              | Fiscal Year 98   |              |                     |                       |         |    |    |    |    |   |   |   | Fiscal Year 99   |   |   |   |   |   |   |   |   |   |   |   | L<br>A<br>T<br>E<br>R |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | Calendar Year 98 |              |                     |                       |         |    |    |    |    |   |   |   | Calendar Year 99 |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | O                | N            | D                   | J                     | F       | M  | A  | M  | J  | J | A | S | O                | N | D | J | F | M | A | M | J | J | A | S |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | C                | O            | E                   | A                     | E       | A  | P  | A  | U  | U | U | E | C                | O | E | A | E | A | P | A | U | U | U | E |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | T                | V            | C                   | N                     | B       | R  | R  | Y  | N  | L | G | P | T                | V | C | N | B | R | Y | N | L | G | P |   |                       |  |    |  |
| 1. VEHICLE                            |                 | 95 & Pr          | A                | 355                 | 318                            | 37  | 10               | 10           | 10                  | 7                     |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       | 1               | FY96             | A                | 105                 | 17                             | 88  | 4                | 3            | 1                   |                       |         |    |    | 10 | 6  | 8 | 8 | 7 | 8                | 8 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 2 |   |                       |  |    |  |
|                                       | 1               | FY 97            | A                | 45                  | 0                              | 45  |                  | 1            | 1                   | 4                     | 9       | 10 | 10 | 10 |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       | 1               | FY 98            | A                | 80                  | 0                              | 80  |                  |              |                     |                       |         |    |    |    |    |   | A |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  | 80 |  |
|                                       |                 |                  |                  |                     |                                |   |                  |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   |                  |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  | 585                 | 335                            | 250                                       | 14               | 14           | 12                  | 11                    | 9       | 10 | 10 | 10 | 10 | 6 | 8 | 8 | 7                | 8 | 8 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 2 |                       |  | 80 |  |
|                                       |                 |                  |                  |                     |                                |   | O                | N            | D                   | J                     | F       | M  | A  | M  | J  | J | A | S | O                | N | D | J | F | M | A | M | J | J | A | S |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | C                | O            | E                   | A                     | E       | A  | P  | A  | U  | U | U | E | C                | O | E | A | E | A | P | A | U | U | U | E |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | T                | V            | C                   | N                     | B       | R  | R  | Y  | N  | L | G | P | T                | V | C | N | B | R | Y | N | L | G | P |   |                       |  |    |  |
| M<br>F<br>R                           | NAME / LOCATION | PRODUCTION RATES |                  |                     | REACHED<br>D+                  | MFR<br>Number                             | ADMIN LEAD TIME  |              | MFR<br>After 1 Oct. | TOTAL<br>After 1 Oct. | REMARKS |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 | MIN.             | 1-8-5            | MAX.                |                                |   | Prior 1 Oct.     | After 1 Oct. |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
| 1                                     | UDLP, York PA   | 8                | 8                | 20                  | 6                              |   | INITIAL          | 8            | 1                   | 18                    | 19      |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | REORDER          | 8            | 8                   | 17                    | 25      |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | INITIAL          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | REORDER          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | INITIAL          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | REORDER          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | INITIAL          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | REORDER          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | INITIAL          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |
|                                       |                 |                  |                  |                     |                                |   | REORDER          |              |                     |                       |         |    |    |    |    |   |   |   |                  |   |   |   |   |   |   |   |   |   |   |   |                       |  |    |  |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)

Program Elements for Code B Items: 023735A  
 Code: B  
 Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 35      | 18      | 73      | 103     | 163     | 181     | 142     | 887         | 1602       |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 175.9   | 115.9   | 272.6   | 292.0   | 423.7   | 457.8   | 391.8   | 2328.3      | 4458.0     |
| Less PY Adv Proc |             |         |         |         |         |         |         | 37.5    | 42.0    | 33.0    | 151.3       | 263.8      |
| Plus CY Adv Proc |             |         |         |         |         |         | 60.6    | 38.3    | 13.6    |         | 151.3       | 263.8      |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 175.9   | 115.9   | 272.6   | 352.6   | 424.5   | 429.4   | 358.8   | 2328.3      | 4458.0     |
| Initial Spares   |             |         |         |         | 0.3     | 7.1     | 9.3     | 11.8    | 11.0    | 11.2    | 83.9        | 134.6      |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 175.9   | 116.2   | 279.7   | 361.9   | 436.3   | 440.4   | 370.0   | 2412.2      | 4592.6     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         | 5.0     | 6.5     | 3.8     | 2.9     | 2.7     | 2.6     | 2.8     | 2.7         | 2.9        |

**DESCRIPTION:** The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

**JUSTIFICATION:** The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

A four year multi-year contract is planned for FY's 00-03.

**Exhibit P-40C Budget Item Justification Sheet**

Date  
February 1998

|  |   |
|--|---|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | P-1 Item Nomenclature<br>BRADLEY BASE SUSTAINMENT (M2A3) (G80717) |
|--|---|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| A3 Advanced Procurement Detail (in Mils): | Fiscal Year | 2000 | 2001   | 2002   | 2003   |
|---|-------------|------|--------|--------|--------|
| FY TOA                                    |             |      |        |        |        |
| FY2000 for FY2001 (memo)                  |             | 37.5 |        |        |        |
| FY2000 for FY2002 (memo)                  |             | 20.3 |        |        |        |
| FY2000 for FY2003 (memo)                  |             | 2.8  |        |        |        |
| FY2001 (memo)                             |             |      | (37.5) |        |        |
| FY2001 for FY2002 (memo)                  |             |      | 21.7   |        |        |
| FY2001 for FY2003 (memo)                  |             |      | 16.6   |        |        |
| FY2002 (memo)                             |             |      |        | (42.0) |        |
| FY2002 for FY2003 (memo)                  |             |      |        | 13.6   |        |
| FY2003 (memo)                             |             |      |        |        | (33.0) |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (M2A3)<br>(G80717) |               |      | Weapon System Type: |               |      | Date:<br>February 1998 |               |      |          |
|---|--|--|--------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b>  |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b>  |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost     | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost     | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000  | \$000         | Each | \$000               | \$000         | Each | \$000                  | \$000         | Each | \$000    |
| 1. Vehicle  |  |  |              |      |  | 68348         | 35   | 1953                | 34785         | 18   | 1933                   | 59134         | 73   | 810      |
| 2. IBAS   |  |  |              |      |  | 35706         | 35   | 1020                | 18699         | 18   | 1039                   | 44214         | 73   | 606      |
| 3. FLIR   |  |  |              |      |  | 20980         | 27   | 777                 | 14377         | 27   | 532                    | 36425         | 76   | 479      |
| 4. Other GFE                                      |  |  |              |      |  | 3212          | 35   | 92                  | 2224          | 18   | 124                    | 55959         | 73   | 767      |
| 5. Reman (General Dynamics)                       |  |  |              |      |  |               |      |                     |               |      |                        | 6049          | 73   | 83       |
| 6. Pre Mod Depot Maint                            |  |  |              |      |  |               |      |                     |               |      |                        | 4290          | 73   | 59       |
| 7. SSES   |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| 8. Linebacker Components                          |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  | <b>128246</b> |      |                     | <b>70085</b>  |      |                        | <b>206071</b> |      |          |
| 9. Engineering--Government                        |  |  |              |      |  | 7234          |      |                     | 11777         |      |                        | 15180         |      |          |
| 10. Engineering--Contractor                       |  |  |              |      |  | 25711         |      |                     | 21422         |      |                        | 27765         |      |          |
| 11. Project Management Administration             |  |  |              |      |  | 1843          |      |                     | 1882          |      |                        | 2314          |      |          |
| 12. Reimbursable Matrix Support                   |  |  |              |      |  | 1945          |      |                     | 2544          |      |                        | 2443          |      |          |
| 13. Test and Evaluation                           |  |  |              |      |  | 861           |      |                     | 760           |      |                        | 277           |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  | <b>37594</b>  |      |                     | <b>38385</b>  |      |                        | <b>47979</b>  |      |          |
| 14. Cummins Engine Life-of-Type (LOT) Buy         |  |  |              |      |  | 8038          |      |                     |               |      |                        |               |      |          |
| 15. Peculiar Support Equipment                    |  |  |              |      |  | 2000          |      |                     | 5600          |      |                        | 7837          |      |          |
| 16. Classroom Spares                              |  |  |              |      |  |               |      |                     |               |      |                        | 2149          |      |          |
| 17. Fielding                                      |  |  |              |      |  |               |      |                     | 1808          |      |                        | 8528          |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  | <b>10038</b>  |      |                     | <b>7408</b>   |      |                        | <b>18514</b>  |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | <b>175878</b> |      |                     | <b>115878</b> |      |                        | <b>272564</b> |      |          |
| <b>Gross P-1 End Cost</b>                         |  |  |              |      |  | <b>175878</b> |      |                     | <b>115878</b> |      |                        | <b>272564</b> |      |          |
| Less: Prior Year Adv Proc                         |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| <b>Net P-1 Full Funding Cost</b>                  |  |  |              |      |  | <b>175878</b> |      |                     | <b>115878</b> |      |                        | <b>272564</b> |      |          |
| Plus: P-1 CY Adv Proc                             |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| Other Non P-1 Costs                               |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| Initial Spares                                    |  |  |              |      |  |               |      |                     | 293           |      |                        | 7130          |      |          |
| Mods  |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | <b>175878</b> |      |                     | <b>116171</b> |      |                        | <b>279694</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
 Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location     | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-----------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Vehicle                         |                             |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | UDLP, York PA               | SS/FFP                   | TACOM           | Jul-97     | Oct-98                 | 35       | 1953            | YES              | NO               |                |
| FY 98                              | UDLP, York PA               | SS/FFP                   | TACOM           | Nov-97     | May-99                 | 18       | 1933            | YES              | NO               |                |
| FY 99                              | UDLP, York PA               | SS/FFP                   | TACOM           | Dec-98     | Mar-00                 | 73       | 810             | YES              | NO               |                |
| 2. IBAS                            |                             |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | RAYTHEON TI,TX/HAC,GA       | C/FFP                    | AMCOM           | Sep-97     | Aug-98                 | 35       | 1020            | YES              | NO               |                |
| FY 98                              | RAYTHEON TI,TX/HAC,GA       | C/FFP                    | AMCOM           | Dec-97     | Apr-99                 | 18       | 1039            | YES              | NO               |                |
| FY 99                              | TBD                         | C/FFP                    | AMCOM           | Jan-99     | Feb-00                 | 73       | 606             | YES              | NO               |                |
| 3. FLIR                            |                             |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | TEXAS INSTRUMENT, DALLAS TX | SS/FFP                   | NVL             | Mar-97     | Apr-98                 | 27       | 777             | YES              | NO               |                |
| FY 98                              | TEXAS INSTRUMENT, DALLAS TX | SS/FFP                   | NVL             | Jan-98     | Jan-99                 | 27       | 532             | YES              | NO               |                |
| FY 99                              | TEXAS INSTRUMENT, DALLAS TX | SS/FFP                   | NVL             | Jan-99     | Dec-99                 | 76       | 479             | YES              | NO               |                |

REMARKS:













**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M4 CARBINE MODS (GB3007)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 0.9     | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0         | 20.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.9     | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0         | 20.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.9     | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0         | 20.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M4 Carbine Modification Program provides a close combat optic, a modular weapon suite, an improved buttstock, a top carry sling and a permanently affixed back-up iron sight for the M4 Carbine. Also it provides the capability for firing the M203A1 Grenade Launcher (GL) with the M4 Carbine.

**JUSTIFICATION:** The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons based upon the mission. The top sling maintains the Carbine in an upright position freeing the user's hands for other tasks. The permanent back-up, rear optive, iron sight provides that capability in the event it becomes immediately necessary. The M203A1 Grenade Launcher insures compatibility with the M4 Carbine. The improved buttstock provides the rifleman an ergonomically optimized buttstock for the M4 Carbine.

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |   |
|--|---|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles | P-1 Item Nomenclature<br>M4 CARBINE MODS (GB3007) |
|--|---|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| Description                        |                | Fiscal Years |         |         |         |         |         |         |         |     |       |
|------------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO.                           | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| Close Combat Optics (M4 Carbine)   |                |              |         |         |         |         |         |         |         |     |       |
| TBD1                               | Operational    | 0.9          | 3.1     | 1.1     | 2.6     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0 | 13.1  |
| M203 for M4 Carbine                |                |              |         |         |         |         |         |         |         |     |       |
| TBD2                               | Operational    | 0.0          | 0.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 0.4   |
| Modular Weapon System (M4 Carbine) |                |              |         |         |         |         |         |         |         |     |       |
| TBD3                               | Operational    | 0.0          | 1.0     | 3.1     | 1.1     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 5.2   |
| M4 Improved Buttstock              |                |              |         |         |         |         |         |         |         |     |       |
| TBD4                               | Operational    | 0.0          | 0.0     | 0.7     | 1.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 2.1   |
| <b>Totals</b>                      |                | 0.9          | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0 | 20.8  |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |
|                                    |                |              |         |         |         |         |         |         |         |     |       |

| INDIVIDUAL MODIFICATION  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   | Date          |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---------|---|---|---------|---------|---|---|---------|---------|--------------|---|---------|---------|---|---|---------------|---------|---|---|---------|---------|--|--|---------|---------|--|--|---------|---------|--|--|---------|---------|--|--|----|---------|---|---|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---------------|---|---|---|---|---|---------------|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   | February 1998 |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODIFICATION TITLE: Close Combat Optics (M4 Carbine) TBD1  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M4 Carbine, M68 Sight Reflex   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The M68 Sight will be installed on the M4 Carbine. The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity. The close combat optic gives the soldier greater hit probability in daylight, low level, wet weather and other adverse conditions.  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PLANNED  |         |   |   |         |         |   |   |         |         | ACCOMPLISHED |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Development/Operational Test   |         |   |   |         |         |   |   |         |         | 1/2Q96       |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Type Classification (LRIP)   |         |   |   |         |         |   |   |         |         | 4Q96         |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production Contract Award  |         |   |   |         |         |   |   |         |         | 4Q96         |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| First Production Hardware Delivered  |         |   |   |         |         |   |   |         |         | 1Q97         |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| First Unit Equipped  |         |   |   |         |         |   |   |         |         | 2Q98         |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>Totals</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   | Pr Yr   | FY 1997 |  |  |         | FY 1998 |  |  |         | FY 1999 |  |  |         | FY 2000 |  |  |    | FY 2001 |   |   |   | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr  | FY 1997 |   |   |         | FY 1998 |   |   |         | FY 1999 |              |   |         | FY 2000 |   |   |               | FY 2001 |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Totals   | 1       | 2 | 3 | 4       | 1       | 2 | 3 | 4       | 1       | 2            | 3 | 4       | 1       | 2 | 3 | 4             | 1       | 2 | 3 | 4       |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th>To</th> <th>Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th> <th></th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td> <td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td> <td></td> </tr> </tbody> </table>  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   | FY 2002 |         |  |  | FY 2003 |         |  |  | FY 2004 |         |  |  | FY 2005 |         |  |  | To | Totals  | 1 | 2 | 3 | 4      | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | Complete |   | <b>Inputs</b> |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FY 2002  |         |   |   | FY 2003 |         |   |   | FY 2004 |         |              |   | FY 2005 |         |   |   | To            | Totals  |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1  | 2       | 3 | 4 | 1       | 2       | 3 | 4 | 1       | 2       | 3            | 4 | 1       | 2       | 3 | 4 | Complete      |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates: FY 1997 Jul 97 FY 1998 Jan 98 FY 1999 Jan 99   |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date: FY 1997 Jul 98 FY 1998 Mar 99 FY 1999 Jun 99  |         |   |   |         |         |   |   |         |         |              |   |         |         |   |   |               |         |   |   |         |         |  |  |         |         |  |  |         |         |  |  |         |         |  |  |    |         |   |   |   |        |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Close Combat Optics (M4 Carbine) TBD1

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |       | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |        |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|-----|----|-------|----|--------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |        |
| RDT&E                           |                   | 1.469 |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    | 1.469  |
| PROCUREMENT                     |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Kit Quantity                    | 3888              |       | 14932   |       | 4480    |       | 12005   |       | 20785   |       |         |    |         |    |         |    |     |    |       |    | 56090  |
| Installation Kits               |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Equipment                       |                   | 0.746 |         | 2.863 |         | 0.859 |         | 2.401 |         | 5.196 |         |    |         |    |         |    |     |    |       |    | 12.065 |
| Equipment, Nonrecurring         |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Engineering Support             |                   | 0.084 |         | 0.140 |         | 0.139 |         | 0.138 |         | 0.115 |         |    |         |    |         |    |     |    |       |    | 0.616  |
| Testing                         |                   | 0.050 |         | 0.050 |         | 0.050 |         | 0.050 |         | 0.050 |         |    |         |    |         |    |     |    |       |    | 0.250  |
| Integrated Logistical Support   |                   | 0.010 |         | 0.020 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |     |    |       |    | 0.090  |
| Fielding                        |                   | 0.010 |         | 0.020 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |     |    |       |    | 0.090  |
| Other                           |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Interim Contractor Support      |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Installation of Hardware        |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       | 3888    |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    | 3888   |
| FY 1997 Eqpt -- Kits            |                   |       |         |       | 511     |       | 14421   |       |         |       |         |    |         |    |         |    |     |    |       |    | 14932  |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 4480    |       |         |       |         |    |         |    |         |    |     |    |       |    | 4480   |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       | 1500    |       | 10505   |       |         |    |         |    |         |    |     |    |       |    | 12005  |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |       | 20785   |       |         |    |         |    |         |    |     |    |       |    | 20785  |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Total Installment               |                   |       |         |       | 4399    |       | 20401   |       | 31290   |       |         |    |         |    |         |    |     |    |       |    | 56090  |
| Total Procurement Cos           |                   | 0.9   |         | 3.1   |         | 1.1   |         | 2.6   |         | 5.4   |         |    |         |    |         |    |     |    |       |    | 13.1   |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   | Date     |   | February 1998 |   |                      |              |   |   |          |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------|---|---------------|---|----------------------|--------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: M203 for M4 Carbine TBD2  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>The Army units assigned the M4 Carbine will obtain the capability to fire the M203 Grenade Launcher (GL) with the M4 Carbine. |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   | PLANNED  |   |               |   |                      | ACCOMPLISHED |   |   |          |   |        |   |
| Developmental/Operational Tests   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      | 1Q97         |   |   |          |   |        |   |
| Type Classification/Milestone III   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      | 4Q97         |   |   |          |   |        |   |
| Production Contract Award   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      | 4Q97         |   |   |          |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   | 2Q98     |   |               |   |                      |              |   |   |          |   |        |   |
| First Unit Equipped   |  |                  |   |   |   |                          |   |   |   | 3Q98     |   |               |   |                      |              |   |   |          |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   | FY 2000              |              |   |   | FY 2001  |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004  |   |               |   | FY 2005              |              |   |   | To       |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 9 Months |   |               |   | PRODUCTION LEADTIME: |              |   |   | 7 Months |   |        |   |
| Contract Dates:   |  | FY 1997 Sep 97   |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   | FY 1999              |              |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 Mar 98   |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   | FY 1999              |              |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M203 for M4 Carbine TBD2

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |       |
|---------------------------------|-------------------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |       |
| RDT&E                           |                   | 0.631 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.631 |
| PROCUREMENT                     |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Kit Quantity                    |                   |       | 2576    |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 2576  |
| Installation Kits               |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Equipment                       |                   |       |         | 0.222 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.222 |
| Equipment, Nonrecurring         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Engineering Support             |                   |       |         | 0.070 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.070 |
| Testing                         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Integrated Logistical Support   |                   |       |         | 0.040 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.040 |
| Fielding                        |                   |       |         | 0.030 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.030 |
| Other                           |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Interim Contractor Support      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation of Hardware        |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1997 Eqpt -- Kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1998 Eqpt -- Kits            |                   |       |         |       | 2576    |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 2576  |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| TC Equip-Kits                   |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Total Installment               |                   |       |         |       | 2576    |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 2576  |
| Total Procurement Cos           |                   |       |         | 0.4   |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.4   |

| INDIVIDUAL MODIFICATION  |  |                  |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |              |   |   |           |   |        |   |
|--|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|--------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: <b>Modular Weapon System (M4 Carbine) TBD3</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED:  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The modular weapon is a system of mounting rails/methods to allow the custom configuration of M4 Carbines with ancillary items such as optics, night sights, IR laser pointers, the grenade launcher, back-up sights, etc., based upon mission requirements. |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |               |   |                      | ACCOMPLISHED |   |   |           |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 3Q95-2Q96    |   |   |           |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   | 3Q98           |   |               |   |                      |              |   |   |           |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   | 4Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| Installation Schedule:   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| Pr Yr  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |              |   |   | FY 2001   |   |        |   |
| Totals   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
|  |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |              |   |   | To        |   | Totals |   |
|  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months       |   |               |   | PRODUCTION LEADTIME: |              |   |   | 13 Months |   |        |   |
| Contract Dates:  |  | FY 1997 Aug 97   |   |   |   | FY 1998 May 98           |   |   |   | FY 1999 Nov 99 |   |               |   |                      |              |   |   |           |   |        |   |
| Delivery Date:   |  | FY 1997 Apr 98   |   |   |   | FY 1998 Oct 99           |   |   |   | FY 1999 Dec 00 |   |               |   |                      |              |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Modular Weapon System (M4 Carbine) TBD3

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |       |       |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$    |       |
| RDT&E                           |                   | 1.158 |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 1.158 |
| PROCUREMENT                     |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Kit Quantity                    |                   |       | 3332    |       | 10829   |       | 2500    |    |         |    |         |    |         |    |         |    |     |    |       | 16661 |       |
| Installation Kits               |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Equipment                       |                   |       |         | 0.880 | 2.761   | 0.896 |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 4.537 |
| Equipment, Nonrecurring         |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Engineering Support             |                   |       |         | 0.058 | 0.200   | 0.125 |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 0.383 |
| Testing                         |                   |       |         | 0.020 |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 0.020 |
| Integrated Logistical Support   |                   |       |         | 0.015 | 0.025   | 0.030 |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 0.070 |
| Fielding                        |                   |       |         | 0.025 | 0.162   | 0.038 |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 0.225 |
| Other                           |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Interim Contractor Support      |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation of Hardware        |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       | 3332  |
| FY 1997 Eqpt -- Kits            |                   |       |         |       | 2000    |       | 1332    |    |         |    |         |    |         |    |         |    |     |    |       |       | 10829 |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 8168    |    | 2661    |    |         |    |         |    |         |    |     |    |       |       | 2500  |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       |         |    | 2500    |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |    |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Total Installment               |                   |       |         |       | 2000    |       | 9500    |    | 5161    |    |         |    |         |    |         |    |     |    |       |       | 16661 |
| Total Procurement Cos           |                   |       |         | 1.0   | 3.1     |       | 1.1     |    |         |    |         |    |         |    |         |    |     |    |       |       | 5.2   |

| INDIVIDUAL MODIFICATION  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              | Date          |   |          |   |        |   |
|--|--|------------------|---|---|---|--------------------------|---|---|---|----------|---|---|---|----------------------|--------------|---------------|---|----------|---|--------|---|
|  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              | February 1998 |   |          |   |        |   |
| MODIFICATION TITLE: M4 Improved Buttstock TBD4   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| <p>The M4 Improved Buttstock provides the rifleman with features for obtaining the proper shooting form; stock/shoulder weld and stock/cheek weld.</p> <p>This program provides the rifleman with an ergonomically optimized buttstock for the M4 Carbine.</p> |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   | PLANNED  |   |   |   |                      | ACCOMPLISHED |               |   |          |   |        |   |
| Finalize Design  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      | 1Q98         |               |   |          |   |        |   |
| Contract Award (Limited Rate)  |  |                  |   |   |   |                          |   |   |   | 2Q98     |   |   |   |                      |              |               |   |          |   |        |   |
| First Production Hardware Delivered  |  |                  |   |   |   |                          |   |   |   | 3Q98     |   |   |   |                      |              |               |   |          |   |        |   |
| First Unit Equipped/ECP  |  |                  |   |   |   |                          |   |   |   | 1Q99     |   |   |   |                      |              |               |   |          |   |        |   |
| Installation Schedule:   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| Pr Yr  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |   |   | FY 2000              |              |               |   | FY 2001  |   |        |   |
| Totals   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3 | 4 | 1                    | 2            | 3             | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
|  |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004  |   |   |   | FY 2005              |              |               |   | To       |   | Totals |   |
|  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3 | 4 | 1                    | 2            | 3             | 4 | Complete |   |        |   |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |              |               |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 1 Months |   |   |   | PRODUCTION LEADTIME: |              |               |   | 6 Months |   |        |   |
| Contract Dates:  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | Feb 98   |   |   |   | FY 1999              |              |               |   | Oct 98   |   |        |   |
| Delivery Date:   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | Apr 98   |   |   |   | FY 1999              |              |               |   | Mar 99   |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M4 Improved Buttstock TBD4

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |    | FY 1998 |       | FY 1999 |     | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |       |
|---------------------------------|-------------------|-------|---------|----|---------|-------|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
|                                 | Qty               | \$    | Qty     | \$ | Qty     | \$    | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |       |
| RDT&E                           |                   | 0.377 |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.377 |
| PROCUREMENT                     |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Kit Quantity                    |                   |       |         |    | 10300   |       | 50571   |     |         |    |         |    |         |    |         |    |     |    |       |    | 60871 |
| Installation Kits               |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation Kits, Nonrecurring |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Equipment                       |                   |       |         |    |         | 0.555 | 1.381   |     |         |    |         |    |         |    |         |    |     |    |       |    | 1.936 |
| Equipment, Nonrecurring         |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Engineering Support             |                   |       |         |    |         | 0.065 | 0.045   |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.110 |
| Testing                         |                   |       |         |    |         | 0.010 |         |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.010 |
| Integrated Logistical Support   |                   |       |         |    |         | 0.020 | 0.005   |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.025 |
| Fielding                        |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Other                           |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Interim Contractor Support      |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation of Hardware        |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1997 Eqpt -- Kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1998 Eqpt -- Kits            |                   |       |         |    |         |       | 10300   |     |         |    |         |    |         |    |         |    |     |    |       |    | 10300 |
| FY 1999 Eqpt -- Kits            |                   |       |         |    |         |       | 35000   |     | 15571   |    |         |    |         |    |         |    |     |    |       |    | 50571 |
| FY 2000 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2001 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2002 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2003 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| TC Equip-Kits                   |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Total Installment               |                   |       |         |    |         |       | 45300   |     | 15571   |    |         |    |         |    |         |    |     |    |       |    | 60871 |
| Total Procurement Cos           |                   |       |         |    |         | 0.7   |         | 1.4 |         |    |         |    |         |    |         |    |     |    |       |    | 2.1   |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY FVS TRAINING DEVICES (G20900)

Program Elements for Code B Items: Code: A Other Related Program Elements: 0203735A D371 COMBAT VEHICLE IMPROVEMENT PROGRAM

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 225.4       | 0.0     | 0.0     | 0.6     | 0.0     | 12.7    | 23.8    | 19.0    | 2.6     | 3.3     | 36.4        | 323.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 225.4       | 0.0     | 0.0     | 0.6     | 0.0     | 12.7    | 23.8    | 19.0    | 2.6     | 3.3     | 36.4        | 323.9      |
| Initial Spares   | 1.8         |         |         |         |         |         |         |         |         |         |             | 1.8        |
| Total Proc Cost  | 227.2       | 0.0     | 0.0     | 0.6     | 0.0     | 12.7    | 23.8    | 19.0    | 2.6     | 3.3     | 36.4        | 325.7      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**Description:**

- Bradley Advanced Training System (BATS) - Integrated BFVS A3 crew precision gunnery training system.
- Maintenance Trainer - Replicates actual Bradley turret allowing maintainers to trouble shoot, fault isolate, and repair.
- Precision Gunnery System (PGS) - Upgrade PGS to integrate BFVS A3. Facilitates unit sustainment training between gunnery cycles.
- Bradley Desktop Trainer (BDT) - desktop computer designed to support individual and networked unit training.

**Justification:**

Introduction of the more technologically advanced Infantry Fighting Vehicle and Cavalry Fighting Vehicles into the Army inventory necessitates a redesign of existing training equipment. The rising cost of fuel, ammunition, repair parts, environment restrictions, vehicles used exclusively for training, and restriction on the availability of suitable training areas will drastically reduce the capability to provide effective, realistic training on the BFVS through the operational use of the vehicle. The goal of training devices is to provide cost effective training to the soldiers without sacrificing realism. This training equipment will be part of an overall training package which will be used to replicate or substitute for actual vehicle use.



| Exhibit P-5, Weapon<br>WTCV Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |             |                   | P-1 Line Item Nomenclature:<br>BRADLEY FVS TRAINING DEVICES<br>(G20900) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|--|-------------|-------------------|---|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| WTCV<br>Cost Elements                     | ID<br>CD | FY 96  |             |                   | FY 97   |             |                   | FY 98               |             |                   | FY 99                  |             |                   |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| Production:                               |          |  |             |                   |   |             |                   |                     |             |                   |                        |             |                   |
| 1. Bradley Advanced Training System       |          |  |             |                   |   |             |                   |                     |             |                   | 6500                   | 5           | 1300              |
| 2. Maintenance Trainers                   |          |  |             |                   | 440   | 1           | 440               |                     |             |                   | 1545                   | 4           | 386               |
| 3. Precision Gunnery System               |          |  |             |                   |   |             |                   |                     |             |                   | 2552                   | 25          | 102               |
| 4. Bradley Desktop Trainer (BDT)          |          |  |             |                   |   |             |                   |                     |             |                   | 1152                   | 96          | 12                |
| Government Engineering:                   |          |  |             |                   |   |             |                   |                     |             |                   |                        |             |                   |
|   |          |  |             |                   | 131   |             |                   |                     |             |                   | 979                    |             |                   |
| TOTAL                                     |          |  |             |                   | 571   |             |                   |                     |             |                   | 12728                  |             |                   |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |            |                        |          |                 |  |                  | Date:          |  |
|---|-------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles |                         |                          |                 |            | Weapon System Type:    |          |                 | P-1 Line Item Nomenclature:<br>BRADLEY FVS TRAINING DEVICES (G20900) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| 1. Bradley Advanced Training System<br>FY99   | TBD                     | FFP                      | TBD             | Nov-98     | Aug-99                 | 5        | 1300            | N/A  | N/A              | N/A            |  |
| 2. Maintenance Trainers<br>FY97   | TBD                     | FFP                      | TBD             | Aug-98     | Jan-99                 | 1        | 440             | N/A  | N/A              | N/A            |  |
| FY99  | TBD                     | FFP                      | TBD             | Jan-99     | Jul-99                 | 4        | 386             | N/A  | N/A              | N/A            |  |
| 3. Precision Gunnery System<br>FY99   | SAAB, Sweden            | FFP                      | STRICOM         | Dec-98     | Aug-99                 | 25       | 102             | N/A  | N/A              | N/A            |  |
| 4. Bradley Deskbook Trainer<br>FY99   | UDLP                    | FFP                      | STRICOM         | Nov-98     | Aug-99                 | 96       | 12              | N/A  | N/A              | N/A            |  |
| REMARKS:  |                         |                          |                 |            |                        |          |                 |  |                  |                |  |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: HAB TRAINING DEVICES (G84600)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         | 5       |         |         |         |             | 5          |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.4     | 15.2    | 1.3     | 1.1     | 0.0     | 0.0         | 17.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.4     | 15.2    | 1.3     | 1.1     | 0.0     | 0.0         | 17.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.4     | 15.2    | 1.3     | 1.1     | 0.0     | 0.0         | 17.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Wolverine (Heavy Assault Bridge) simulator is an institutional operator training system (near term implementation) and will evolve into a future unit collective training system (mid to far term) implementation. Five institutional operator simulator systems will be located and housed at Ft. Leonard Wood to accomplish Advanced Individual Training (AIT) for the Military Occupational Specialty (MOS) 12B Combat Engineer on Wolverine driver/operator mission functions. Mission functions will include, driving the vehicle and conducting gap crossing operations (e.g. launch and retrieve the bridge) - day/night and in all weather/environmental conditions. Each simulator system will have the capability to train two Wolverine crews (4 MOS 12Fs) concurrently. The average student throughput is approximately 208.

**JUSTIFICATION:** The simulators will optimize training effectiveness at reduced institutional OPTEMPO costs and will minimize environmental impact to the installation.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |           |      | P-1 Line Item Nomenclature:<br>HAB TRAINING DEVICES (G84600) |           |      | Weapon System Type: |           |      | Date:<br>February 1998 |           |      |          |
|---|--|--|-----------|------|--|-----------|------|---------------------|-----------|------|------------------------|-----------|------|----------|
| WTCV<br>Cost Elements                     |  | ID   | FY 96     |      |  | FY 97     |      |                     | FY 98     |      |                        | FY 99     |      |          |
|   |  | CD   | TotalCost | Qty  | UnitCost   | TotalCost | Qty  | UnitCost            | TotalCost | Qty  | UnitCost               | TotalCost | Qty  | UnitCost |
|   |  |  | \$000     | Each | \$000  | \$000     | Each | \$000               | \$000     | Each | \$000                  | \$000     | Each | \$000    |
| Gov't Program Mgmt                        |  |  |           |      |  |           |      |                     |           |      |                        | 386       |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 723.8       | 10.3    | 5.9     | 4.3     | 6.1     | 5.1     | 4.6     | 4.6     | 4.9     | 4.9     | 0.0         | 774.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 723.8       | 10.3    | 5.9     | 4.3     | 6.1     | 5.1     | 4.6     | 4.6     | 4.9     | 4.9     | 0.0         | 774.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 723.8       | 10.3    | 5.9     | 4.3     | 6.1     | 5.1     | 4.6     | 4.6     | 4.9     | 4.9     | 0.0         | 774.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

Description: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish modernize, expand and replace facilities owned by the Army and provide Production Support and Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment used in production, production testing of Weapons and Tracked Combat Vehicles. Also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and portions of plants which are no longer required for active production.

Justification: The FY99 request includes essential funding for replacement of equipment & instrumentation in production test facilities at Aberdeen, Yuma Proving Grounds, and White Sands Missile Range (WSMR) and layaway of industrial equipment which is excess to production requirements at Rock Island and Watervliet Arsenals.

|        | FY 1996      | FY 1997      | FY 1998      | FY 1999      |
|--------|--------------|--------------|--------------|--------------|
| PIF    | 3.215        | 2.904        | 3.489        | 3.441        |
| LIF    | <u>2.640</u> | <u>1.392</u> | <u>2.578</u> | <u>1.699</u> |
| TOTALS | 5.855        | 4.296        | 6.067        | 5.140        |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>  |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>PRODUCTION BASE SUPPORT (WOCV-<br>WTCV) (GC0050) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>  |  | ID  | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |  | CD  | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |  |   | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 09X5263 MOD, Aberdeen Proving Ground<br>Provides funds to replace, modernize and<br>upgrade equipment and instrumentation<br>used in production testing of Wpns & Trkd<br>Cmbt Vehs. Upgrading will be performed<br>on automotive performance test equipment,<br>vehicle dynamics, high speed imaging,<br>interior exterior ballistics support inst, and<br>toxic fumes instrumentation. |  |   | \$1.360      |      |   | \$1.068      |      |                     | \$1.470      |      |                        | \$1.472      |      |          |
| 09X5268 MOD, Yuma Proving Grounds<br>Provides funds to replace, modernize and<br>upgrade equip/instrumentation used in<br>production testing of WTCV.  |  |   | \$1.214      |      |   | \$0.966      |      |                     | \$1.480      |      |                        | \$1.430      |      |          |
| 09X5269 PSR, White Sands Missile Range<br>Provides funds to replace, modernize and<br>upgrade equip/instrumentation used in<br>production testing at WSMR.   |  |   | \$0.641      |      |   | \$0.870      |      |                     | \$0.539      |      |                        | \$0.539      |      |          |
| 69X7667 LIF, Rock Isl & Watervliet Arsenal<br>Provides funds for Layaway and Redis-<br>tribution of Government-Owned equipment<br>and preservation of equipment to include<br>portions of plants which are no longer<br>required for active production, but must be<br>retained for future use. Also provides for<br>plant clearance/preparation of equipment<br>to be excessed.         |  |   | \$2.640      |      |   | \$1.392      |      |                     | \$2.578      |      |                        | \$1.699      |      |          |
| <b>TOTAL</b>   |  |   | \$5.855      |      |   | \$4.296      |      |                     | \$6.067      |      |                        | \$5.140      |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 17.5        | 0.0     | 0.0     | 0.0     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.2     | 0.0         | 18.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 17.5        | 0.0     | 0.0     | 0.0     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.2     | 0.0         | 18.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 17.5        | 0.0     | 0.0     | 0.0     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.2     | 0.0         | 18.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** Provides for procurement/assembly of full tracked vehicle organizational maintenance tool/shop sets. This equipment has multi-applications and is essential for effective maintenance on all tracked vehicles.

**JUSTIFICATION:** Required to provide organizational maintenance personnel with equipment essential to maintain full tracked vehicles in an acceptable state of readiness. Funding of this program will establish and maintain the operational capability of the Bradley Fighting Vehicle, M1 Tank, etc.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>      |      | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>ITEMS LESS THAN \$2.0M (TCV-WTCV)<br>(GL3100) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|------|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                          |      | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |      | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |      |  | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Shop Set, Contact<br>and Emergency Repair, FM       | G352 | A  | 11           | 1    | 11   | 11           | 1    | 11                  | 44           | 3    | 15                     | 33           | 3    | 11       |
| 2. Tool Set, Full Tracked<br>Vehicle, Org Maint, Sup 2 | G649 | A  |              |      |  |              |      |                     | 92           | 7    | 13                     | 90           | 7    | 13       |
| 3. Shop Equip, Contact<br>Repair Shop, Light Vhl Mtd   | G314 | A  |              |      |  |              |      |                     |              |      |                        | 9            | 1    | 9        |
| <b>TOTAL</b>   |      |  | <b>11</b>    |      |  | <b>11</b>    |      |                     | <b>136</b>   |      |                        | <b>132</b>   |      |          |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: INDUSTRIAL PREPAREDNESS (GC0075)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 37.2        | 6.7     | 5.3     | 5.1     | 5.6     | 4.0     | 4.5     | 4.4     | 5.1     | 4.8     | 0.0         | 82.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 37.2        | 6.7     | 5.3     | 5.1     | 5.6     | 4.0     | 4.5     | 4.4     | 5.1     | 4.8     | 0.0         | 82.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 37.2        | 6.7     | 5.3     | 5.1     | 5.6     | 4.0     | 4.5     | 4.4     | 5.1     | 4.8     | 0.0         | 82.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** This program provides funding to retain, protect, and maintain laidaway reserve industrial plants and equipment. Costs include grounds, utilities, fire and guard protection. Also includes funding for condition assessments of laidaway facilities and costs to rehabilitate equipment to useable condition.

**JUSTIFICATION:** The FY99 request supports the equipment and facilities at Rock Island & Watervliet Arsenals. It includes the overhead cost attributed to the laidaway portions of the Arsenal. Funds also support some of the retention, maintenance and the cost for guard protection at the facilities which are not being utilized.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>  |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>INDUSTRIAL PREPAREDNESS (GC0075) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>  |  | ID  | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |  | CD  | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |  |   | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 49X2100 Plant-Equip Storage, SEAD<br>Provided for storage and maintenance of equipment which was retained at Seneca Army Depot (SEAD) to meet future production requirements.  |  |   | \$1.049      |      |   | \$0.108      |      |                     |              |      |                        |              |      |          |
| 49X4290 Ret & Maintenance - Facilities<br>Provides for storage of equipment for future production at Rock Island and Watervliet Arsenals. Also funds for ground maint., fire and guard protection for inactive portions.                           |  |   | \$2.182      |      |   | \$2.182      |      |                     | \$2.761      |      |                        | \$0.502      |      |          |
| 69X7670 Ret & Maintenance - Plants/Equip.<br>Provides for overhead costs attributed to laidaway portions of Watervliet & Rock Island Arsenal. Also funds storage and maintenance costs of equipment which has been laidaway for future production. |  |   | \$2.052      |      |   | \$2.778      |      |                     | \$2.879      |      |                        | \$3.457      |      |          |
| <b>TOTAL</b>   |  |   | \$5.283      |      |   | \$5.068      |      |                     | \$5.640      |      |                        | \$3.959      |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)

Program Elements for Code B Items: Code: A Other Related Program Elements: 0203735A D371 COMBAT VEHICLE IMPROVEMENT PROGRAM

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 3.9         | 6.0     | 0.5     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0         | 22.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 3.9         | 6.0     | 0.5     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0         | 22.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 3.9         | 6.0     | 0.5     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0         | 22.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 Software upgrades to BFV Conduct of Fire Trainer (COFT)s, ODS COFTS, Precision Gunnery System, Bradley Advanced Training System, Bradley Desktop Trainer, and Maintenance Training Systems.

**JUSTIFICATION:**  
 Since training devices now function based on software which, as the systems are upgraded/modified, the training device software must be modified to provide adequate training for the soldier. Currently fielded training devices will be upgraded to support the BFVS as system enhancements and software maturation occurs. The average soldier sustainment throughput per year is approximately 3600 for the BFV Commanders and Gunners in the units who will be receiving training on these COFTS.

**Exhibit P-40M Budget Item Justification Sheet**

Date

February 1998

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

P-1 Item Nomenclature

BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)

Program Elements for Code B Items

Code

Other Related Program Elements

Description

Fiscal Years

| OSIP NO.          | Classification | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
|-------------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| Software Upgrades |                |         |         |         |         |         |         |         |         |     |       |
| 1-96-05-4513      | Operational    | 0.0     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0 | 12.1  |
| Totals            |                | 0.0     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0 | 12.1  |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |
|                   |                |         |         |         |         |         |         |         |         |     |       |

| INDIVIDUAL MODIFICATION  |         |   |   |   |         |   |   |   |         | Date                               |   | February 1998 |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---------|---|---|---|---------|---|---|---|---------|------------------------------------|---|---------------|---------|---|--------------------------------|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: <b>Software Upgrades 1-96-05-4513</b>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: BFV COFTs, ODS COFTS, Precision Gunnery System, BATS, Bradley Desktop Trainer, Maintenance Training Sytems.  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>Software updates will be required of training devices. As a system is upgraded/modified software on the training device must be modified to ensure adequate training for the soldier.  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |         |   |   |   |         |   |   |   |         | PLANNED                            |   |               |         |   | ACCOMPLISHED                   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preliminary Design Review<br>Critical Design Review<br>Contractor Test & Evaluation<br>Development Test & Evaluation<br>Initial Operational Test and Evaluation<br>IPR Production Decision<br>TDP Available  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  | <b>Inputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                                    |   |               | FY 2000 |   |                                |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                                  | 3 | 4             | 1       | 2 | 3                              | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Totals</b>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                                    |   |               | FY 2005 |   |                                |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                                  | 3 | 4             | 1       | 2 | 3                              | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |         |   |   |   |         |   |   |   |         | ADMINISTRATIVE LEADTIME: 24 Months |   |               |         |   | PRODUCTION LEADTIME: 24 Months |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates: FY 1997 Apr 98 FY 1998 Apr 99 FY 1999 Apr 01   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date: FY 1997 Apr 00 FY 1998 Apr 01 FY 1999 Apr 01  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Software Upgrades 1-96-05-4513

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |      |
|---------------------------------|-------------------|----|---------|-----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|------|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |      |
| RDT&E                           |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| PROCUREMENT                     |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Kit Quantity                    |                   |    |         | 0.8 |         |    |         | 2.1 |         | 4.4 |         | 4.8 |         |    |         |    |     |    |       |    | 12.1 |
| Installation Kits               |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Installation Kits, Nonrecurring |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Equipment                       |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Equipment, Nonrecurring         |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Engineering Change Orders       |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Data                            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Training Equipment              |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Support Equipment               |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Other                           |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Interim Contractor Support      |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Installation of Hardware        |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| TC Equip-Kits                   |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Total Installment               |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Total Procurement Cos           |                   |    |         | 0.8 |         |    |         | 2.1 |         | 4.4 |         | 4.8 |         |    |         |    |     |    |       |    | 12.1 |

**Exhibit P-40, Budget Item Justification Sheet**

Date:

**February 1998**

Appropriation / Budget Activity/Serial No:

**PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles**

P-1 Item Nomenclature:

**FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)**

Program Elements for Code B Items:

Code:

**A**

Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 805         |         | 48      | 48      | 36      |         |         |         |         |         |             | 937        |
| Gross Cost       | 408.9       | 0.0     | 50.0    | 58.3    | 39.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 556.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 408.9       | 0.0     | 50.0    | 58.3    | 39.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 556.4      |
| Initial Spares   | 1.8         |         |         |         |         |         |         |         |         |         |             | 1.8        |
| Total Proc Cost  | 410.7       | 0.0     | 50.0    | 58.3    | 39.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 558.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 0.5         |         | 1.0     | 1.2     | 1.1     |         |         |         |         |         |             | .6         |

**DESCRIPTION:**

The Field Artillery Ammunition Support Vehicle (FAASV) is a full tracked armored ammunition vehicle with onboard Ammunition Handling Equipment (AHE). The M992 is used to support the M109 Self-Propelled Howitzer (SPH). The FAASV is capable of transporting a minimum 12,000 pounds of 155mm ammunition over improved, unimproved, and/or cross-country roads. Armor shielding provides necessary ballistic protection. An armored rear door hinges upward and outward to provide the overhead ballistic protection between the FAASV and the Howitzer during loading operations. A conveyor is used for passing prepared projectiles and propellant charges from the FAASV into the supported Howitzer. Modifications to the rear door, conveyor, and propellant canister racks is incorporated to make the FAASV compatible with the M109A6 Paladin. The FAASV has the mobility equivalent to its supported Self-Propelled Howitzers. The FAASV is designed to operate in all geographical areas and climatic conditions in which the Howitzer operates. The M992A2 was type classified standard in July 1994.

**JUSTIFICATION:**

The Carrier, Ammunition, Tracked (155mm, M992A2) provides a significant improvement to the Army's offensive ground combat capability. The FAASV provides 100% increase in armor protection for the crew and ammunition, an 80% increase in Ammunition Handling Equipment (AHE) capability and a 50% increase in vehicle mobility over the current M548, which is being replaced on a one-for-one basis. Thus, high artillery firing rates can be maintained while minimizing casualties. The FAASV has a ventilated face piece Nuclear, Biological, Chemical(NBC) system, a Simplified Test Equipment - Internal Combustion Engine (STE-ICE), and an Automatic Fire Extinguisher System. The FAASV is a companion vehicle to, and is required to support the M109A6 Self-Propelled Howitzer (SPH). It also preserves a warm mobilization base for the SPH with the only tooled and experienced producer.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |             |                   | P-1 Line Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT<br>VEH (G80100) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|--|-------------|-------------------|---|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| WTCV<br>Cost Elements                     | ID<br>CD | FY 96  |             |                   | FY 97   |             |                   | FY 98               |             |                   | FY 99                  |             |                   |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| 1. Basic Vehicle                          | A        | 38361  | 48          | 799               | 31224   | 48          | 651               | 26925               | 36          | 748               |                        |             |                   |
| 2. Engine                                 |          | 1334   | 48          | 28                | 1386  | 48          | 29                | 1040                | 36          | 29                |                        |             |                   |
| 3. Roadwheels                             |          | 144  | 48          | 3                 | 144   | 48          | 3                 | 115                 | 36          | 3                 |                        |             |                   |
| 4. Track                                  |          | 895  | 48          | 19                | 779   | 48          | 16                | 516                 | 36          | 14                |                        |             |                   |
| 5. BII/COEI                               |          | 560  |             |                   | 1389  |             |                   | 593                 |             |                   |                        |             |                   |
| 6. Government Furnished Materiel          |          | 2519   |             |                   | 4259  |             |                   | 1035                |             |                   |                        |             |                   |
| 7. Engineering Change Orders              |          | 95   |             |                   | 95  |             |                   | 71                  |             |                   |                        |             |                   |
| 8. Engineering - Government               |          | 1506   |             |                   | 7155  |             |                   | 3240                |             |                   |                        |             |                   |
| 9. Engineering - Contractor               |          | 2448   |             |                   | 8589  |             |                   | 3234                |             |                   |                        |             |                   |
| 10. Project Management Administration     |          | 600  |             |                   | 1901  |             |                   | 1220                |             |                   |                        |             |                   |
| 11. Systems Testing                       |          | 252  |             |                   | 332   |             |                   | 350                 |             |                   |                        |             |                   |
| 12. Fielding                              |          | 1274   |             |                   | 1061  |             |                   | 840                 |             |                   |                        |             |                   |
| <b>TOTAL</b>                              |          | <b>49988</b>   |             |                   | <b>58314</b>  |             |                   | <b>39179</b>        |             |                   |                        |             |                   |



| Exhibit P-5a, Budget Procurement History and Planning   |   |                          |                 |  |                        |          |                 |                  |                  | Date:          |
|---|---|--------------------------|-----------------|--|------------------------|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles |   |                          |                 |  |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |   |                          |                 | P-1 Line Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) |                        |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                         | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. Basic Vehicle  |   |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | United Defense (UDLP-GSD)<br>York, PA           | SS/FFP                   | TACOM           | Jul-96   | May-98                 | 48       | 799             |                  |                  |                |
| FY 97   | United Defense (UDLP-GSD)<br>York, PA           | Option                   | TACOM           | Jan-97   | Nov-98                 | 48       | 651             |                  |                  |                |
| FY 98   | United Defense (UDLP-GSD)<br>York, PA           | SS/FFP                   | TACOM           | Apr-98   | May-99                 | 36       | 748             |                  |                  | Jan-98         |
| 2. Engine   |   |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | Detroit Diesel Detroit, MI                      | SS/FFP                   | TACOM           | Jul-96   | Dec-97                 | 48       | 28              |                  |                  |                |
| FY 97   | Detroit Diesel Detroit, MI                      | SS/FFP                   | TACOM           | Jan-97   | Aug-98                 | 48       | 29              |                  |                  |                |
| FY 98   | Detroit Diesel Detroit, MI                      | SS/FFP                   | TACOM           | Jan-98   | Dec-98                 | 36       | 29              |                  |                  |                |
| 3. Roadwheels   |   |                          |                 |  |                        |          |                 |                  |                  |                |
| FY96  | North American Molded<br>Products Hartville, OH | C/FFP                    | TACOM           | May-96   | Oct-97                 | 48       | 3               |                  |                  |                |
| FY 97   | North American Molded<br>Products Hartville, OH | C/FFP                    | TACOM           | Jan-97   | May-98                 | 48       | 3               |                  |                  |                |
| FY 98   | North American Molded<br>Products Hartville, OH | C/FFP                    | TACOM           | Feb-98   | Mar-99                 | 36       | 3               |                  |                  |                |
| 4. Track  |   |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | Varec, Belguim                                  | C/FFP                    | TACOM           | Jul-96   | Oct-97                 | 48       | 19              |                  |                  |                |
| FY 97   | Detroit Diesel                                  | C/FFP                    | TACOM           | Sep-97   | May-98                 | 48       | 16              |                  |                  |                |
| FY 98   | Detroit Diesel                                  | C/FFP                    | TACOM           | Feb-98   | Aug-98                 | 36       | 14              |                  |                  |                |
| REMARKS:  |   |                          |                 |  |                        |          |                 |                  |                  |                |

|  |   |                        |
|--|---|------------------------|
| <b>FY 98 / 99 BUDGET PRODUCTION SCHEDULE</b> | P-1 Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) | Date:<br>February 1998 |
|--|---|------------------------|

| COST ELEMENTS    | M<br>F<br>R | FY           | S<br>E<br>R<br>V | PROC<br>QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT | Fiscal Year 96   |             |             |             |             |             |             |             |             |             |             |             | Fiscal Year 97   |             |             |             |             |             |             |             |             |             |             |             | L<br>A<br>T<br>E<br>R |
|------------------|-------------|--------------|------------------|---------------------|--------------------------------|------------------------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------|
|                  |             |              |                  |                     |                                |                              | Calendar Year 96 |             |             |             |             |             |             |             |             |             |             |             | Calendar Year 97 |             |             |             |             |             |             |             |             |             |             |             |                       |
|                  |             |              |                  |                     |                                |                              | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                       |
| 1. Basic Vehicle | 1           | FY95 & Prior | A                | 805                 | 805                            |                              |                  |             |             |             |             |             |             |             |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                       |
|                  | 1           | FY 96        | A                | 48                  | 0                              | 48                           |                  |             |             |             |             |             |             |             | A           |             |             |             |                  |             |             |             |             |             |             |             |             |             | 48          |             |                       |
|                  | 1           | FY 97        | A                | 48                  | 0                              | 48                           |                  |             |             |             |             |             |             |             |             |             |             |             | A                |             |             |             |             |             |             |             |             |             | 48          |             |                       |
|                  | 1           | FY 98        | A                | 36                  | 0                              | 36                           |                  |             |             |             |             |             |             |             |             |             |             |             |                  |             |             |             |             |             |             |             |             |             | 36          |             |                       |

| M<br>F<br>R | NAME / LOCATION           | PRODUCTION RATES |       |      | REACHED<br>D + | MFR<br>Number | ADMIN LEAD TIME |              |    | MFR<br>After 1 Oct. | TOTAL<br>After 1 Oct. | REMARKS |
|-------------|---------------------------|------------------|-------|------|----------------|---------------|-----------------|--------------|----|---------------------|-----------------------|---------|
|             |                           | MIN.             | 1-8-5 | MAX. |                |               | Prior 1 Oct.    | After 1 Oct. |    |                     |                       |         |
|             |                           |                  |       |      |                |               |                 |              |    |                     |                       |         |
| 1           | United Defense (UDLP-GSD) | 6                | 9     | 15   |                | INITIAL       | 6               | 10           | 22 | 32                  |                       |         |
|             |                           |                  |       |      |                | REORDER       | 3               | 4            | 22 | 26                  |                       |         |
|             |                           |                  |       |      |                | INITIAL       | 3               | 7            | 14 | 21                  |                       |         |
|             |                           |                  |       |      |                | REORDER       |                 |              |    |                     |                       |         |
|             |                           |                  |       |      |                | INITIAL       |                 |              |    |                     |                       |         |
|             |                           |                  |       |      |                | REORDER       |                 |              |    |                     |                       |         |
|             |                           |                  |       |      |                | INITIAL       |                 |              |    |                     |                       |         |
|             |                           |                  |       |      |                | REORDER       |                 |              |    |                     |                       |         |
|             |                           |                  |       |      |                | INITIAL       |                 |              |    |                     |                       |         |
|             |                           |                  |       |      |                | REORDER       |                 |              |    |                     |                       |         |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                           |              |      |               |                       |                     | P-1 Item Nomenclature:                          |            |     |              |                 |              |     |              |              |       |         |     | Date:            |     |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|---------------------------|--------------|------|---------------|-----------------------|---------------------|---|------------|-----|--------------|-----------------|--------------|-----|--------------|--------------|-------|---------|-----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
|                                       |                           |              |      |               |                       |                     | FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) |            |     |              |                 |              |     |              |              |       |         |     | February 1998    |     |     |     |     |     |     |     |     |     |     |     |           |
| COST ELEMENTS                         | MFR                       | FY           | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98                                  |            |     |              |                 |              |     |              |              |       |         |     | Fiscal Year 99   |     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |                           |              |      |               |                       |                     | Calendar Year 98                                |            |     |              |                 |              |     |              |              |       |         |     | Calendar Year 99 |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     | OCT   | NOV        | DEC | JAN          | FEB             | MAR          | APR | MAY          | JUN          | JUL   | AUG     | SEP | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Basic Vehicle                      | 1                         | FY95 & Prior | A    | 805           | 805                   |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                         | FY 96        | A    | 48            | 0                     | 48                  |   |            |     |              |                 |              |     | 4            | 9            | 8     | 9       | 9   | 9                |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                         | FY 97        | A    | 48            | 0                     | 48                  |   |            |     |              |                 |              |     |              |              |       | 8       | 8   | 8                | 8   | 8   | 8   |     |     |     |     |     |     |     |     |           |
|                                       | 1                         | FY 98        | A    | 36            | 0                     | 36                  |   |            |     |              |                 |              | A   |              |              |       |         |     |                  |     |     | 4   | 4   | 8   | 8   | 8   | 4   |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     |              |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     | OCT   | NOV        | DEC | JAN          | FEB             | MAR          | APR | MAY          | JUN          | JUL   | AUG     | SEP | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| MFR                                   | NAME / LOCATION           |              |      |               | PRODUCTION RATES      |                     |   | REACHED D+ |     | MFR Number   | ADMIN LEAD TIME |              |     |              | MFR          | TOTAL | REMARKS |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               | MIN.                  | 1-8-5               | MAX.  |            |     | Prior 1 Oct. |                 | After 1 Oct. |     | After 1 Oct. | After 1 Oct. |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | United Defense (UDLP-GSD) |              |      |               | 6                     | 9                   | 15  |            |     | INITIAL      | 6               | 10           | 22  | 32           |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | REORDER      | 3               | 4            | 22  | 26           |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | INITIAL      | 3               | 6            | 14  | 20           |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | REORDER      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | INITIAL      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | REORDER      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | INITIAL      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | REORDER      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | INITIAL      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                           |              |      |               |                       |                     |   |            |     | REORDER      |                 |              |     |              |              |       |         |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |              |      |               |                       |                     | P-1 Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) |     |     |     |     |     |     |     |     |     |     |     |     | Date:<br>February 1998 |     |     |     |     |           |     |     |
|---------------------------------------|-----|--------------|------|---------------|-----------------------|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|-----------|-----|-----|
| COST ELEMENTS                         | MFR | FY           | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00  |     |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 01         |     |     |     |     | L A T E R |     |     |
|                                       |     |              |      |               |                       |                     | Calendar Year 00  |     |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 01       |     |     |     |     |           |     |     |
|                                       |     |              |      |               |                       |                     | OCT   | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV                    | DEC | JAN | FEB | MAR |           | APR | MAY |
| 1. Basic Vehicle                      | 1   | FY95 & Prior | A    | 805           | 805                   |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |     |           |     |     |
|                                       | 1   | FY 96        | A    | 48            | 48                    |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |     |           |     |     |
|                                       | 1   | FY 97        | A    | 48            | 48                    |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |     |           |     |     |
|                                       | 1   | FY 98        | A    | 36            | 32                    | 4                   | 4   |     |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |     |           |     |     |

  

| MFR | NAME / LOCATION           | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS |
|-----|---------------------------|------------------|-------|------|-------------|------------|-----------------|--------------|--------------|--------------|---------|
|     |                           | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |         |
| 1   | United Defense (UDLP-GSD) | 6                | 9     | 15   |             |            | INITIAL         | 6            | 10           | 22           | 32      |
|     |                           |                  |       |      |             |            | REORDER         | 3            | 4            | 22           | 26      |
|     |                           |                  |       |      |             |            | INITIAL         | 3            | 6            | 14           | 20      |
|     |                           |                  |       |      |             |            | REORDER         |              |              |              |         |
|     |                           |                  |       |      |             |            | INITIAL         |              |              |              |         |
|     |                           |                  |       |      |             |            | REORDER         |              |              |              |         |
|     |                           |                  |       |      |             |            | INITIAL         |              |              |              |         |
|     |                           |                  |       |      |             |            | REORDER         |              |              |              |         |
|     |                           |                  |       |      |             |            | INITIAL         |              |              |              |         |
|     |                           |                  |       |      |             |            | REORDER         |              |              |              |         |

**Exhibit P-40, Budget Item Justification Sheet**

Date:

**February 1998**

Appropriation / Budget Activity/Serial No:

**PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles**

P-1 Item Nomenclature:

**FAASV PIP TO FLEET (GA8010)**

Program Elements for Code B Items:

Code:

**A**

Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 56.7        | 9.9     | 6.4     | 23.5    | 1.9     | 3.2     | 0.1     | 0.0     | 18.7    | 0.0     | 4.6         | 124.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 56.7        | 9.9     | 6.4     | 23.5    | 1.9     | 3.2     | 0.1     | 0.0     | 18.7    | 0.0     | 4.6         | 124.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 56.7        | 9.9     | 6.4     | 23.5    | 1.9     | 3.2     | 0.1     | 0.0     | 18.7    | 0.0     | 4.6         | 124.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Funds the procurement of approved modifications to the M992 and M992A1 Field Artillery Ammunition Support Vehicle (See detailed Description/Justification on the following exhibit P-3A).

| Exhibit P-40M Budget Item Justification Sheet   |                |  |                |             |                                |            |  |            | Date<br>February 1998 |            |            |              |
|---|----------------|--|----------------|-------------|--------------------------------|------------|--|------------|-----------------------|------------|------------|--------------|
| Appropriation / Budget Activity/Serial No. (No P3a Set)<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                |  |                |             |                                |            | P-1 Item Nomenclature<br>FAASV PIP TO FLEET (GA8010) |            |                       |            |            |              |
| Program Elements for Code B Items   |                |  |                | Code<br>A   | Other Related Program Elements |            |  |            |                       |            |            |              |
| Description   |                |  | Fiscal Years   |             |                                |            |  |            |                       |            |            |              |
| OSIP NO.  | Classification |  | FY1996 & Prior | FY 1997     | FY 1998                        | FY 1999    | FY 2000  | FY 2001    | FY 2002               | FY 2003    | TC         | Total        |
| FAASV Materiel Change (A2 Conversion)   |                |  |                |             |                                |            |  |            |                       |            |            |              |
| 1-93-05-4457  | Unclassified   |  | 72.5           | 22.5        | 0.1                            | 2.9        | 0.1  | 0.0        | 18.7                  | 0.0        | 0.0        | 116.8        |
| FAASV Halon Replacement   |                |  |                |             |                                |            |  |            |                       |            |            |              |
| 1-94-05-4477  | Unclassified   |  | 0.4            | 1.0         | 1.8                            | 0.3        | 0.0  | 0.0        | 0.0                   | 0.0        | 4.6        | 8.1          |
| <b>Totals</b>   |                |  | <b>72.9</b>    | <b>23.5</b> | <b>1.9</b>                     | <b>3.2</b> | <b>0.1</b>   | <b>0.0</b> | <b>18.7</b>           | <b>0.0</b> | <b>4.6</b> | <b>124.9</b> |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |
|   |                |  |                |             |                                |            |  |            |                       |            |            |              |

| INDIVIDUAL MODIFICATION   |        |         |    |    |    |         |    |    |     | Date    |    | February 1998 |   |         |   |   |   |          |        |   |   |
|---|--------|---------|----|----|----|---------|----|----|-----|---------|----|---------------|---|---------|---|---|---|----------|--------|---|---|
| <b>MODIFICATION TITLE: FAASV Materiel Change (A2 Conversion) 1-93-05-4457</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>MODELS OF SYSTEMS AFFECTED: FAASV M992A2</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>DESCRIPTION / JUSTIFICATION:</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <p>The FAASV materiel change encompasses the previously approved FAASV HELP (Howitzer Extended Life Program) and Survivability Materiel Changes. The materiel change incorporates M109 Family of Vehicles improvements into the FAASV in order to maintain a common chassis. These improvements include the Low Heat Rejection/Cold Start Engine, improved XTG 411-4 Transmission, Reliability, and Maintainability (RAM) improvements to the cooling, electrical, and suspension systems, relocated heater and hydraulic reservoir, stronger fuel cell, and modifications to provide interoperability with the M109A6 Paladin Howitzer. The enhancements provided by the materiel change will permit the FAASV crew to operate in the same environment as the M109A6 Paladin. This means the operation and maintenance features will be common (i.e. spares, repair parts, special tools, and training) and the FAASV cold starting and RAM features will be comparable. The modifications to the rear door conveyor and propellant racks will improve M109A6 supportability. Funding against Depot Maintenance Pre-Modification pays the Inspect and Repair Only As Necessary (IROAN) upgrade effort. FY99 represents the first year these funds were transferred from the Operation and Maintenance, Army(OMA) to the procurement appropriation as directed by Program Budget Decision (PBD) 21.</p> |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| Preliminary Design Review: 1QFY91<br>Critical Design Review: 4QFY91<br>Contractor Test and Evaluation: 2QFY93<br>IPR Production Design: 3QFY93<br>TDP Available: 3QFY93<br>M992A2 First Delivery: 3QFY94<br>M992A2 First Unit Equipped: 1QFY95  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>Installation Schedule:</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
|   | Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |    |     | FY 1999 |    |               |   | FY 2000 |   |   |   | FY 2001  |        |   |   |
|   | Totals | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4   | 1       | 2  | 3             | 4 | 1       | 2 | 3 | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>   | 356    | 33      | 31 | 90 | 21 | 42      | 39 | 63 | 106 | 8       |    |               |   |         |   |   |   |          |        |   |   |
| <b>Outputs</b>  | 321    | 33      | 32 | 29 | 25 | 51      | 49 | 76 | 110 | 35      | 26 | 2             |   |         |   |   |   |          |        |   |   |
|   |        | FY 2002 |    |    |    | FY 2003 |    |    |     | FY 2004 |    |               |   | FY 2005 |   |   |   | To       | Totals |   |   |
|   |        | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4   | 1       | 2  | 3             | 4 | 1       | 2 | 3 | 4 | Complete |        |   |   |
| <b>Inputs</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          | 789    |   |   |
| <b>Outputs</b>  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          | 789    |   |   |
| <b>METHOD OF IMPLEMENTATION:</b> Field Retrofit <b>ADMINISTRATIVE LEADTIME:</b> 12 Months <b>PRODUCTION LEADTIME:</b> 7 Months  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>Contract Dates:</b> FY 1997    October 1997      FY 1998    N/A      FY 1999    N/A  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>Delivery Date:</b> FY 1997    April 1998      FY 1998    N/A      FY 1999    N/A   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |

| INDIVIDUAL MODIFICATION          |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    | Date   |    | February 1998 |     |       |
|----------------------------------|-------------------|------|---------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|-----|---------|----|--|----|---------------|-----|-------|
| MODIFICATION TITLE (Cont):       |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    | FAASV Materiel Change (A2 Conversion) 1-93-05-4457 |    |               |     |       |
| FINANCIAL PLAN: (\$ in Millions) |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
|                                  | FY 1996 and Prior |      | FY 1997 |      | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |     | FY 2003 |    | TC   |    | TOTAL         |     |       |
|                                  | Qty               | \$   | Qty     | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty  | \$ | Qty           | \$  |       |
| RDT&E                            |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| PROCUREMENT                      |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| Kit Quantity                     | 664               |      | 125     |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               | 789 |       |
| Installation Kits                |                   | 42.4 |         | 2.3  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     | 44.7  |
| Engineering Change Orders        |                   | 10.2 |         | 0.1  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     | 10.3  |
| Project Management Admin         |                   | 1.0  |         | 0.2  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     | 1.2   |
| Testing                          |                   | 0.1  |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     | 0.1   |
| Vehicular Intercom System        |                   |      |         | 9.1  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     | 9.1   |
| Fielding                         |                   | 3.4  |         | 0.9  |         | 0.1 |         | 0.2 |         | 0.1 |         |    |         |     |         |    |  |    |               |     | 4.7   |
| Depot Maint PreModification      |                   |      |         |      |         |     |         | 2.7 |         |     |         |    |         | 0.6 |         |    |  |    |               |     | 3.3   |
| Auxiliary Power Unit             |                   |      |         |      |         |     |         |     |         |     |         |    | 18.1    |     |         |    |  |    |               |     | 18.1  |
| Installation of Hardware         |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| FY 1996 & Prior Eqpt( 664) Kits  | 462               | 15.4 | 202     | 8.4  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               | 664 | 23.8  |
| FY 1997 Eqpt (125) Kits          |                   |      | 125     | 1.5  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               | 125 | 1.5   |
| FY 1998 Eqpt -- Kits             |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| FY 1999 Eqpt -- Kits             |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| FY 2000 Eqpt -- kits             |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| FY 2001 Eqpt -- kits             |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| FY 2002 Eqpt -- kits             |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| FY 2003 Eqpt -- kits             |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| TC Equip-Kits                    |                   |      |         |      |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               |     |       |
| Total Installment                | 462               | 15.4 | 327     | 9.9  |         |     |         |     |         |     |         |    |         |     |         |    |  |    |               | 789 | 25.3  |
| Total Procurement Cos            |                   | 72.5 |         | 22.5 |         | 0.1 |         | 2.9 |         | 0.1 |         |    | 18.7    |     |         |    |  |    |               |     | 116.8 |



| INDIVIDUAL MODIFICATION   |  |                 |   |   |   |                          |   |   |   |                 |     |     |     | Date                 |                | February 1998 |     |          |   |        |   |
|---|--|-----------------|---|---|---|--------------------------|---|---|---|-----------------|-----|-----|-----|----------------------|----------------|---------------|-----|----------|---|--------|---|
| MODIFICATION TITLE: <b>FAASV Halon Replacement 1-94-05-4477</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: <b>FAASV M992A2</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>References: DOD Directive 6050.0; DA Policy Letter 200.0.1; AMC Regulation 70-68; Montreal Protocol of 1986 and Presidential Directi<br>These references mandate the replacement of Halon charged fire suppression systems to prevent ozone depletion. A common<br>replacement agent engine compartment fire extinguishing system is required for 885 FAASV systems. FY97-99 funds have been<br>appropriated to begin step one of the conversion by replacing the fire suppression distribution system in the FAASV engine compartment on<br>688 vehicles with one suitable to both Halon and the selected alternate agent. |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   |        |   |
|   |  |                 |   |   |   |                          |   |   |   | <b>PLANNED:</b> |     |     |     |                      | <b>ACTUAL:</b> |               |     |          |   |        |   |
| Preliminary Design Review:  |  |                 |   |   |   |                          |   |   |   | 2QFY98          |     |     |     |                      | 1QFY98         |               |     |          |   |        |   |
| Critical Design Review:   |  |                 |   |   |   |                          |   |   |   | 2QFY98          |     |     |     |                      |                |               |     |          |   |        |   |
| Joint Government Contractor Test and Evaluation:  |  |                 |   |   |   |                          |   |   |   | 2QFY98          |     |     |     |                      | 1QFY98         |               |     |          |   |        |   |
| IPR Production Decision:  |  |                 |   |   |   |                          |   |   |   | 3QFY98          |     |     |     |                      |                |               |     |          |   |        |   |
| TDP Available:  |  |                 |   |   |   |                          |   |   |   | 3QFY98          |     |     |     |                      |                |               |     |          |   |        |   |
| Installation Schedule:  |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   |        |   |
|   |  | FY 1997         |   |   |   | FY 1998                  |   |   |   | FY 1999         |     |     |     | FY 2000              |                |               |     | FY 2001  |   |        |   |
| Pr Yr   |  | 1               | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1               | 2   | 3   | 4   | 1                    | 2              | 3             | 4   | 1        | 2 | 3      | 4 |
| Totals  |  |                 |   |   |   |                          |   |   |   | 100             | 100 | 244 | 244 | 197                  |                |               |     |          |   |        |   |
| <b>Inputs</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   |        |   |
| <b>Outputs</b>  |  |                 |   |   |   |                          |   |   |   | 57              | 50  | 26  | 20  | 50                   | 162            | 162           | 161 |          |   |        |   |
|   |  | FY 2002         |   |   |   | FY 2003                  |   |   |   | FY 2004         |     |     |     | FY 2005              |                |               |     | To       |   | Totals |   |
|   |  | 1               | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1               | 2   | 3   | 4   | 1                    | 2              | 3             | 4   | Complete |   |        |   |
| <b>Inputs</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   | 885    |   |
| <b>Outputs</b>  |  |                 |   |   |   |                          |   |   |   |                 |     |     |     |                      |                |               |     |          |   | 688    |   |
| METHOD OF IMPLEMENTATION:   |  | Unknown         |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 9 Months        |     |     |     | PRODUCTION LEADTIME: |                |               |     | 6 Months |   |        |   |
| Contract Dates:   |  | FY 1997 July 98 |   |   |   | FY 1998 July 98          |   |   |   | FY 1999 N/A     |     |     |     |                      |                |               |     |          |   |        |   |
| Delivery Date:  |  | FY 1997 Dec 88  |   |   |   | FY 1998 Dec 88           |   |   |   | FY 1999 N/A     |     |     |     |                      |                |               |     |          |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): FAASV Halon Replacement 1-94-05-4477

FINANCIAL PLAN: (\$ in Millions)

|                              | FY 1996<br>and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |     | TOTAL |     |     |
|------------------------------|----------------------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|------|-----|-------|-----|-----|
|                              | Qty                  | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$  | Qty   | \$  |     |
| RDT&E                        |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| PROCUREMENT                  |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Quantity Kit A               |                      |     | 200     |     | 488     |     | 197     |     |         |    |         |    |         |    |         |    |      |     | 885   |     |     |
| Hardware for Kit A           |                      |     |         | 0.3 |         | 0.7 |         | 0.3 |         |    |         |    |         |    |         |    |      |     |       |     | 1.3 |
| Engineering Support          |                      |     |         | 0.3 |         | 0.4 |         |     |         |    |         |    |         |    |         |    |      |     |       |     | 0.7 |
| Data                         |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Test                         |                      | 0.4 |         | 0.4 |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     | 0.8 |
| Other                        |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Quantity Kit B               |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Hardware for Kit B           |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    | 885  | 3.4 | 885   |     | 3.4 |
| Installation of Hardware     |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 1996 & Prior Eqpt -- Kits |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 1997 Eqpt (200) Kits      |                      |     |         |     | 200     | 0.2 |         |     |         |    |         |    |         |    |         |    |      |     |       | 200 | 0.2 |
| FY 1998 Eqpt (488) Kits      |                      |     |         |     | 488     | 0.5 |         |     |         |    |         |    |         |    |         |    |      |     |       | 488 | 0.5 |
| FY 1999 Eqpt -- Kits         |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2000 Eqpt -- kits         |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2001 Eqpt -- kits         |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2002 Eqpt -- kits         |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2003 Eqpt -- kits         |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| TC Equip-Kits                |                      |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    | 1082 | 1.2 | 1082  |     | 1.2 |
| Total Installment            |                      |     |         |     | 688     | 0.7 |         |     |         |    |         |    |         |    |         |    | 1082 | 1.2 | 1770  |     | 1.9 |
| Total Procurement Cos        |                      | 0.4 |         | 1.0 |         | 1.8 |         | 0.3 |         |    |         |    |         |    |         |    |      | 4.6 |       |     | 8.1 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M119 MODIFICATIONS (GC0401)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 0.0         | 15.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 0.0         | 15.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 0.0         | 15.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Light Artillery System Improvement Plan (LASIP) for the 105mm, M119A1 Light, Towed Howitzer

JUSTIFICATION: The 105mm M119A1 Light, Towed Howitzer was selected as the weapon of choice for the light forces because it was a nondevelopmental item (NDI) with growth potential. Now that 418 M119A1 howitzers have been fielded, it is time to realize that growth potential. The Light Artillery System Improvement Plan (LASIP) initiates this process by correcting known deficiencies, improving reliability, availability and maintainability (RAM), and providing solutions to requests for minor operational enhancements. The LASIP was developed by the M119A1 Howitzer Improvement Team (HIT), chartered specifically to respond to improvements requested by field artillery units, the U.S. Army Field Artillery School (USAFAS) and the U.S. Army Training and Doctrine Command (TRADOC).

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

Appropriation / Budget Activity/Serial No.      P-1 Item Nomenclature  
 PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles      M119 MODIFICATIONS (GC0401)

Program Elements for Code B Items      Code      Other Related Program Elements

| Description     |                | Fiscal Years |         |         |         |         |         |         |         |      |       |
|-----------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|------|-------|
| OSIP NO.        | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC   | Total |
| Block 1 Upgrade |                |              |         |         |         |         |         |         |         |      |       |
| TBD1            | Operational    | 0.0          | 0.0     | 4.9     | 4.8     | 2.9     | 0.3     | 0.0     | 0.0     | 0.0  | 12.8  |
| Block 2 Upgrade |                |              |         |         |         |         |         |         |         |      |       |
| TBD2            | Operational    | 0.0          | 0.0     | 0.0     | 0.0     | 0.0     | 2.9     | 0.0     | 0.0     | 13.9 | 16.8  |
| Totals          |                | 0.0          | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 13.9 | 29.6  |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |
|                 |                |              |         |         |         |         |         |         |         |      |       |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |         |                          |   |   |    | Date         |    | February 1998 |    |                      |                           |    |    |          |    |        |     |  |  |  |
|---|--|------------------|---|---|---------|--------------------------|---|---|----|--------------|----|---------------|----|----------------------|---------------------------|----|----|----------|----|--------|-----|--|--|--|
| MODIFICATION TITLE: Block 1 Upgrade TBD1  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| MODELS OF SYSTEMS AFFECTED: Howitzer, Light Towed, 105mm M119A1   |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br>Retrofit Low Temp Recuperator 1-90-05-7875; The seals function only to temperature of -25F not the -50F. Improve Indirect Fire control; Upgrade M187 1-94-05-7911; The M119A1 indirect fire control system fails approximately 14 times more often than other hardware fire control systems when Operational Mode Profile (OMP) is factored in. Upgrade Cam Follower Arm; Preventing damage to the cam follower will improve reliability, availability and maintainability while reducing Operating and Support costs (OSCR). Improve Firing Stays; The design and mounting clearances for the clevis pins on the rear firing stays of the firing platform make it very difficult to attach the stays to the trail during emplacement. Improve Traveling Stays; The design and mounting clearances for the clevis pins on the traveling stays make it very difficult to attach the stays to the trail when preparing for towing Redesign Rammer/Extractor Tool; Modify Brake System; The system required a special production run by the British manufacturer, the brake also used asbestos brake linings. Add Trail Lifting Handles; Due to limited clearance, the user has requested trail lifting handles be designed. |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
|   |  |                  |   |   | Planned |                          |   |   |    | Accomplished |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| Validate Materiel change (MC)   |  |                  |   |   |         |                          |   |   |    | 3Q90         |    |               |    |                      | Deliver First Mod Kit     |    |    |          |    | 4Q98   |     |  |  |  |
| Critical Design Review  |  |                  |   |   |         |                          |   |   |    | 3Q91         |    |               |    |                      | First Unit Equipped (FUE) |    |    |          |    | 1Q99   |     |  |  |  |
| Complete Testing of Prototype   |  |                  |   |   |         |                          |   |   |    | 3Q92         |    |               |    |                      | Deliver Last Mod Kit      |    |    |          |    | 3Q01   |     |  |  |  |
| Release Technical Data Package (TDP)  |  |                  |   |   |         |                          |   |   |    | 1Q93         |    |               |    |                      | Last Unit Equipped        |    |    |          |    | 4Q01   |     |  |  |  |
| Award Contract for Modification Kits  |  |                  |   |   | 2Q98    |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| Installation Schedule:  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| Pr Yr   |  | FY 1997          |   |   |         | FY 1998                  |   |   |    | FY 1999      |    |               |    | FY 2000              |                           |    |    | FY 2001  |    |        |     |  |  |  |
| Totals  |  | 1                | 2 | 3 | 4       | 1                        | 2 | 3 | 4  | 1            | 2  | 3             | 4  | 1                    | 2                         | 3  | 4  | 1        | 2  | 3      | 4   |  |  |  |
| <b>Inputs</b>   |  |                  |   |   |         |                          |   |   | 30 | 30           | 35 | 35            | 35 | 35                   | 35                        | 35 | 35 | 40       | 40 | 40     | 40  |  |  |  |
| <b>Outputs</b>  |  |                  |   |   |         |                          |   |   |    | 30           | 30 | 35            | 35 | 35                   | 35                        | 35 | 35 | 35       | 40 | 40     | 40  |  |  |  |
|   |  | FY 2002          |   |   |         | FY 2003                  |   |   |    | FY 2004      |    |               |    | FY 2005              |                           |    |    | To       |    | Totals |     |  |  |  |
|   |  | 1                | 2 | 3 | 4       | 1                        | 2 | 3 | 4  | 1            | 2  | 3             | 4  | 1                    | 2                         | 3  | 4  | Complete |    |        |     |  |  |  |
| <b>Inputs</b>   |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        | 425 |  |  |  |
| <b>Outputs</b>  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        | 425 |  |  |  |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |         | ADMINISTRATIVE LEADTIME: |   |   |    | 4 Months     |    |               |    | PRODUCTION LEADTIME: |                           |    |    | 6 Months |    |        |     |  |  |  |
| Contract Dates:   |  | FY 1997          |   |   |         | FY 1998                  |   |   |    | Multiple     |    |               |    | FY 1999              |                           |    |    | Multiple |    |        |     |  |  |  |
| Delivery Date:  |  | FY 1997          |   |   |         | FY 1998                  |   |   |    | Multiple     |    |               |    | FY 1999              |                           |    |    | Multiple |    |        |     |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Block 1 Upgrade TBD1

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |       | FY 1999 |       | FY 2000 |       | FY 2001 |       | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |        |       |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|-----|----|-------|--------|-------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$     |       |
| RDT&E                           |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| PROCUREMENT                     |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Kit Quantity                    |                   |    |         |    | 110     |       | 125     |       | 190     |       |         |       |         |    |         |    |     |    |       | 425    |       |
| Installation Kits               |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Installation Kits, Nonrecurring |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Equipment                       |                   |    |         |    |         | 4.219 |         | 4.107 |         | 2.156 |         |       |         |    |         |    |     |    |       | 10.482 |       |
| Equipment, Nonrecurring         |                   |    |         |    |         | 0.026 |         |       |         |       |         |       |         |    |         |    |     |    |       | 0.026  |       |
| Engineering Change Orders       |                   |    |         |    |         | 0.032 |         | 0.025 |         | 0.025 |         |       |         |    |         |    |     |    |       | 0.082  |       |
| Engineering Support             |                   |    |         |    |         | 0.218 |         | 0.225 |         | 0.235 |         |       |         |    |         |    |     |    |       | 0.678  |       |
| Training Equipment              |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Support Equipment               |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Other                           |                   |    |         |    |         | 0.304 |         |       |         |       |         |       |         |    |         |    |     |    |       | 0.304  |       |
| Fielding                        |                   |    |         |    |         | 0.076 |         | 0.111 |         | 0.118 |         |       |         |    |         |    |     |    |       | 0.305  |       |
| Installation of Hardware        |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |       | 110     | 0.295 |         |       |         |       |         |    |         |    |     |    |       | 110    | 0.295 |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |       | 20      | 0.049 | 105     | 0.260 |         |       |         |    |         |    |     |    |       | 125    | 0.309 |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |       |         |       | 35      | 0.067 | 155     | 0.297 |         |    |         |    |     |    |       | 190    | 0.364 |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| TC Equip-Kits                   |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Total Installment               |                   |    |         |    |         |       | 130     | 0.344 | 140     | 0.327 | 155     | 0.297 |         |    |         |    |     |    |       | 425    | 0.968 |
| Total Procurement Cos           |                   |    |         |    |         | 4.9   |         | 4.8   |         | 2.9   |         | 0.3   |         |    |         |    |     |    |       |        | 12.8  |

| INDIVIDUAL MODIFICATION  |  |                  |   |     |         |                          |     |   |   | Date         |   | February 1998 |   |                      |                           |   |   |          |   |        |     |  |  |  |
|--|--|------------------|---|-----|---------|--------------------------|-----|---|---|--------------|---|---------------|---|----------------------|---------------------------|---|---|----------|---|--------|-----|--|--|--|
| MODIFICATION TITLE: Block 2 Upgrade TBD2   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| MODELS OF SYSTEMS AFFECTED:  |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The rammer/extractor tool currently issued was "borrowed" from the M102 Howitzer which requires the base of the primed cartridge be forcefully struck by a hard rubble plunger. Upgrade elevating handwheel; it is the limiting factor in the system departure angle during cross country movement and is highly susceptible to damage during tactical operations. These items are included in the "To Complete"(TC): Improve the Direct Fire Scope; Improving the direct fire scope will provide night capability, improved accuracy and internal boresighting. Modify the Firing Platform clamps; The firing platform must be disengaged from its stowage brackets, lifted manually from the trail, carried completely clear of the trail and placed on the ground before the howitzer can be rolled into its firing position. Modify the Elevation Clutches; This will reduce corrosion damage and lower maintenance costs. Replace competitive tubes in the buffer assembly with a more reliable system. This eliminates the collapse of the current tube design.</p> |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
|  |  |                  |   |     | Planned |                          |     |   |   | Accomplished |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Validate Materiel change (MC)  |  |                  |   |     |         |                          |     |   |   | 3Q94         |   |               |   |                      | Deliver First Mod Kit     |   |   |          |   | 3Q02   |     |  |  |  |
| Critical Design Review   |  |                  |   |     | 1Q01    |                          |     |   |   |              |   |               |   |                      | First Unit Equipped (FUE) |   |   |          |   | 4Q02   |     |  |  |  |
| Complete Testing of Prototype  |  |                  |   |     | 2Q01    |                          |     |   |   |              |   |               |   |                      | Deliver Last Mod Kit      |   |   |          |   | 2Q03   |     |  |  |  |
| Release Technical Data Package (TDP)   |  |                  |   |     | 4Q01    |                          |     |   |   |              |   |               |   |                      | Last Unit Equipped        |   |   |          |   | 3Q03   |     |  |  |  |
| Award Contract for Modification Kits   |  |                  |   |     | 1Q02    |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Installation Schedule:   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Pr Yr  |  | FY 1997          |   |     |         | FY 1998                  |     |   |   | FY 1999      |   |               |   | FY 2000              |                           |   |   | FY 2001  |   |        |     |  |  |  |
| Totals   |  | 1                | 2 | 3   | 4       | 1                        | 2   | 3 | 4 | 1            | 2 | 3             | 4 | 1                    | 2                         | 3 | 4 | 1        | 2 | 3      | 4   |  |  |  |
| <b>Inputs</b>  |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| <b>Outputs</b>   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
|  |  | FY 2002          |   |     |         | FY 2003                  |     |   |   | FY 2004      |   |               |   | FY 2005              |                           |   |   | To       |   | Totals |     |  |  |  |
|  |  | 1                | 2 | 3   | 4       | 1                        | 2   | 3 | 4 | 1            | 2 | 3             | 4 | 1                    | 2                         | 3 | 4 | Complete |   |        |     |  |  |  |
| <b>Inputs</b>  |  |                  |   | 105 | 110     | 110                      | 100 |   |   |              |   |               |   |                      |                           |   |   |          |   |        | 425 |  |  |  |
| <b>Outputs</b>   |  |                  |   | 105 | 110     | 110                      | 100 |   |   |              |   |               |   |                      |                           |   |   |          |   |        | 425 |  |  |  |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |     |         | ADMINISTRATIVE LEADTIME: |     |   |   | 6 Months     |   |               |   | PRODUCTION LEADTIME: |                           |   |   | 6 Months |   |        |     |  |  |  |
| Contract Dates:  |  | FY 1997          |   |     |         | FY 1998                  |     |   |   | FY 1999      |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Delivery Date:   |  | FY 1997          |   |     |         | FY 1998                  |     |   |   | FY 1999      |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |

| INDIVIDUAL MODIFICATION          |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | Date                 |    | February 1998 |        |  |  |     |  |
|----------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|----------------------|----|---------------|--------|--|--|-----|--|
| MODIFICATION TITLE (Cont):       |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | Block 2 Upgrade TBD2 |    |               |        |  |  | len |  |
| FINANCIAL PLAN: (\$ in Millions) |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
|                                  | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC                   |    | TOTAL         |        |  |  |     |  |
|                                  | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty                  | \$ | Qty           | \$     |  |  |     |  |
| RDT&E                            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| PROCUREMENT                      |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Kit Quantity                     |                   |    |         |    |         |    |         |    |         | 425 |         |    |         |    |         |    |                      |    | 425           |        |  |  |     |  |
| Installation Kits                |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Installation Kits, Nonrecurring  |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Equipment                        |                   |    |         |    |         |    |         |    |         |     | 2.480   |    |         |    |         |    | 8.995                |    |               | 11.475 |  |  |     |  |
| Equipment, Nonrecurring          |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.110                |    |               | 0.110  |  |  |     |  |
| Engineering Change Orders        |                   |    |         |    |         |    |         |    |         |     | 0.082   |    |         |    |         |    | 0.350                |    |               | 0.432  |  |  |     |  |
| Engineering Support              |                   |    |         |    |         |    |         |    |         |     | 0.263   |    |         |    |         |    | 2.425                |    |               | 2.688  |  |  |     |  |
| Testing                          |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.650                |    |               | 0.650  |  |  |     |  |
| Support Equipment                |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Other                            |                   |    |         |    |         |    |         |    |         |     | 0.085   |    |         |    |         |    | 0.305                |    |               | 0.390  |  |  |     |  |
| Fielding                         |                   |    |         |    |         |    |         |    |         |     | 0.022   |    |         |    |         |    | 0.076                |    |               | 0.098  |  |  |     |  |
| Installation of Hardware         |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1996 & Prior Eqpt -- Kits     |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1997 Eqpt -- Kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1998 Eqpt -- Kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1999 Eqpt -- Kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2000 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2001 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2002 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2003 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| TC Equip-Kits                    |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.952                |    |               | 0.952  |  |  |     |  |
| Total Installment                |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.952                |    |               | 0.952  |  |  |     |  |
| Total Procurement Cos            |                   |    |         |    |         |    |         |    |         |     | 2.9     |    |         |    |         |    | 13.9                 |    |               | 16.8   |  |  |     |  |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 13          | 15      | 24      | 24      | 10      | 15      | 25      | 25      | 34      | 45      | 399         | 629        |
| Gross Cost       | 31.2        | 33.9    | 54.4    | 55.5    | 31.9    | 38.2    | 57.4    | 58.2    | 77.8    | 101.8   | 1029.3      | 1569.4     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 31.2        | 33.9    | 54.4    | 55.5    | 31.9    | 38.2    | 57.4    | 58.2    | 77.8    | 101.8   | 1029.3      | 1569.4     |
| Initial Spares   |             | 2.9     | 1.6     | 2.0     | 0.8     | 2.9     | 3.2     | 3.1     | 4.2     | 4.2     | 63.2        | 88.0       |
| Total Proc Cost  | 31.2        | 36.8    | 56.0    | 57.5    | 32.7    | 41.1    | 60.5    | 61.3    | 82.0    | 105.9   | 1092.4      | 1657.5     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 2.4         | 2.3     | 2.3     | 2.3     | 3.2     | 2.5     | 2.3     | 2.3     | 2.3     | 2.3     | 2.6         | 2.5        |

**DESCRIPTION:** The M88A2 HERCULES is an armored, full-tracked, diesel-powered, recovery vehicle configured with an A-frame boom, three winches, and a spade. The boom has a 35 ton lift capacity and the main winch has a constant pull capacity of 70 tons. The hull is armored for protection against small arms fire, artillery fragments and anti-personnel mines. The vehicle mounts a caliber .50 machine gun for self-protection. The M88A2 HERCULES is capable of performing recovery, evacuation, and limited repair of the main battle tank. The FY98 procurement is the first year of full rate production following a Milestone III decision in August 1997. The procurement objective for the HERCULES is 629 vehicles.

**JUSTIFICATION:** The present 56 ton M88A1 is deficient in its ability to safely perform battlefield recovery of vehicles weighing 60 tons or more. The M88A1 cannot safely recover the Army's current main battle tank, the Abrams Tank, without using a second vehicle as a brake vehicle. The present lack of recovery capability has necessitated the development of a heavy recovery vehicle to provide a towing capability for vehicles weighing up to 70 tons. Future Army vehicles exceeding the M88A1's capability include the Grizzly, Wolverine, and Crusader. The M88A2 HERCULES will provide the Army this capability. The M88A2 program strategy is to modify the existing M88 recovery vehicle chassis, upgrade the propulsion system to 1050 horsepower, add armor protection, improve winching to 70 tons, improve hoisting to 35 tons, and add a hydraulic assisted braking system.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>IMPROVED RECOVERY VEHICLE (M88<br>MOD) (GA0570) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Vehicle Manufacturing - Contractor             |  | A  | 45841        | 24   | 1910   | 44421        | 24   | 1851                | 19153        | 10   | 1915                   | 28395        | 15   | 1893     |
| 2. Vehicle Manufacturing - GFE                    |  |  | 2193         | *24  | VAR  | 2390         | *24  | VAR                 | 972          | *10  | VAR                    | 1471         | *15  | VAR      |
| 3. Contractor Engineering                         |  |  | 1349         |      |  | 3152         |      |                     | 3205         |      |                        | 3159         |      |          |
| 4. Engineering Change Orders                      |  |  | 125          |      |  | 318          |      |                     | 604          |      |                        | 893          |      |          |
| 5. Project Management - Core                      |  |  | 870          |      |  | 974          |      |                     | 1006         |      |                        | 1014         |      |          |
| 6. Project Management - OGA                       |  |  | 1116         |      |  | 1017         |      |                     | 1118         |      |                        | 1128         |      |          |
| 7. Transportation                                 |  |  | 48           |      |  | 48           |      |                     | 23           |      |                        | 36           |      |          |
| 8. Fielding                                       |  |  | 873          |      |  | 580          |      |                     | 1192         |      |                        | 1052         |      |          |
| 9. Testing  |  |  | 1890         |      |  | 959          |      |                     | 649          |      |                        |              |      |          |
| 10. Test Vehicle Refurb                           |  |  | 58           |      |  | 1670         |      |                     |              |      |                        |              |      |          |
| 11. Depot Maintenance - Premodification           |  |  |              |      |  |              |      |                     |              |      |                        | 1027         |      |          |
| 12. Congressional Increase (ECP)                  |  |  |              |      |  |              |      |                     | 4000         |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>54363</b> |      |  | <b>55529</b> |      |                     | <b>31922</b> |      |                        | <b>38175</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
February 1998

Appropriation / Budget Activity/Serial No:  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature:  
IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)

| WBS Cost Elements:<br>Fiscal Years           | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--|-------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. Vehicle Manufacturing - Contractor</b> |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96  | UDLP (1)                | SS-FFP                   | TACOM           | Apr-96     | Jul-97                 | 24       | 1910            | YES              |                  | Nov-95         |
| FY 97  | UDLP                    | SS-FFP                   | TACOM           | Apr-97     | Jul-98                 | 24       | 1851            | YES              |                  | Nov-96         |
| FY 98  | UDLP                    | SS-FFP                   | TACOM           | Apr-98     | Jul-99                 | 10       | 1915            | YES              |                  | Nov-97         |
| FY 99  | UDLP                    | SS-FFP                   | TACOM           | Apr-99     | Nov-00                 | 15       | 1893            | YES              |                  | Nov-98         |
| <b>2. Vehicle Manufacturing - GFE</b>        |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96  | Various                 | Reqn/PO                  | Various         |            |                        | 24       | VAR             | YES              |                  |                |
| FY 97  | Various                 | Reqn/PO                  | Various         |            |                        | 24       | VAR             | YES              |                  |                |
| FY 98  | Various                 | Reqn/PO                  | Various         |            |                        | 10       | VAR             | YES              |                  |                |
| FY 99  | Various                 | Reqn/PO                  | Various         |            |                        | 15       | VAR             | YES              |                  |                |

REMARKS: (1) UDLP - United Defense Limited Partnership

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |                  |                          | P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |                  |     |     |     |     |     |     |     |     |     |     |     | Date: February 1998 |     |     |     |     |                       |     |          |          |          |            |
|---------------------------------------|-----|-------|------|------------------|--------------------------|---|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|-----|-----|-----|-----|-----------------------|-----|----------|----------|----------|------------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY<br>Each | ACCEP. PRIOR<br>TO 1 OCT | BAL DUE<br>AS OF 1 OCT  | Fiscal Year 96   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 97      |     |     |     |     | L<br>A<br>T<br>E<br>R |     |          |          |          |            |
|                                       |     |       |      |                  |                          |   | Calendar Year 96 |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 97    |     |     |     |     |                       |     |          |          |          |            |
|                                       |     |       |      |                  |                          |   | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                 | NOV | DEC | JAN | FEB |                       | MAR | APR      | MAY      | JUN      | JUL        |
| 1. Vehicle Manufacturing - Contr      |     |       |      |                  |                          |   |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          |          |            |
|                                       | 1   | FY 96 | A    | 24               | 0                        | 24  |                  |     |     |     |     |     | A   |     |     |     |     |     |                     |     |     |     |     |                       | 2   | 2        | 2        | 18       |            |
|                                       | 1   | FY 97 | A    | 24               | 0                        | 24  |                  |     |     |     |     |     |     |     |     |     |     |     | A                   |     |     |     |     |                       |     |          |          | 24       |            |
|                                       | 1   | FY 98 | A    | 10               | 0                        | 10  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          | 10       |            |
|                                       | 1   | FY 99 | A    | 15               | 0                        | 15  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          | 15       |            |
|                                       | 1   | FY 00 | A    | 25               | 0                        | 25  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          | 25       |            |
|                                       | 1   | FY01  | A    | 25               | 0                        | 25  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          | 25       |            |
|                                       | 1   | FY 02 | A    | 34               | 0                        | 34  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          | 34       |            |
|                                       | 1   | FY 03 | A    | 45               | 0                        | 45  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     |          |          | 45       |            |
| <b>TOTAL</b>                          |     |       |      | <b>202</b>       | <b>0</b>                 | <b>202</b>  |                  |     |     |     |     |     |     |     |     |     |     |     |                     |     |     |     |     |                       |     | <b>2</b> | <b>2</b> | <b>2</b> | <b>196</b> |

  

| MFR | NAME / LOCATION | PRODUCTION RATES |       |      | REACHED<br>D + | MFR<br>Number | ADMIN LEAD TIME |              | MFR<br>After 1 Oct. | TOTAL<br>After 1 Oct. | REMARKS |
|-----|-----------------|------------------|-------|------|----------------|---------------|-----------------|--------------|---------------------|-----------------------|---------|
|     |                 | MIN.             | 1-8-5 | MAX. |                |               | Prior 1 Oct.    | After 1 Oct. |                     |                       |         |
| 1   | UDLP York, PA   | 2                | 3     | 5    |                |               |                 | 6            | 15                  | 21                    |         |
|     |                 |                  |       |      |                | INITIAL       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | REORDER       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | INITIAL       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | REORDER       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | INITIAL       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | REORDER       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | INITIAL       |                 |              |                     |                       |         |
|     |                 |                  |       |      |                | REORDER       |                 |              |                     |                       |         |





| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |       |      |               |                       |                     | P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |       |      |         |            |                 |              |              |              |       |  |     |                  | Date: February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----------------|-------|------|---------------|-----------------------|---------------------|---|-------|------|---------|------------|-----------------|--------------|--------------|--------------|-------|--|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR             | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 02  |       |      |         |            |                 |              |              |              |       |  |     | Fiscal Year 03   |                     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |                 |       |      |               |                       |                     | Calendar Year 02  |       |      |         |            |                 |              |              |              |       |  |     | Calendar Year 03 |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     | OCT   | NOV   | DEC  | JAN     | FEB        | MAR             | APR          | MAY          | JUN          | JUL   | AUG  | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 96 | A    | 24            | 24                    |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 97 | A    | 24            | 24                    |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 98 | A    | 10            | 10                    |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 99 | A    | 15            | 15                    |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 00 | A    | 25            | 6                     | 19                  | 2   | 2     | 2    | 2       | 2          | 2               | 2            | 2            | 3            |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY01  | A    | 25            | 0                     | 25                  |   |       |      |         |            |                 |              |              |              | 3     | 2  | 2   | 2                | 2                   | 2   | 2   | 2   | 2   | 2   | 2   | 2   |     |     |     |           |
|                                       | 1               | FY 02 | A    | 34            | 0                     | 34                  |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     | 2   | 2   | 3   | 27  |     |           |
|                                       | 1               | FY 03 | A    | 45            | 0                     | 45                  |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     | 45  |     |     |           |
| TOTAL                                 |                 |       |      | 202           | 79                    | 123                 |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     | 123 |     |     |           |
| MFR                                   | NAME / LOCATION |       |      |               |                       |                     | PRODUCTION RATES  |       |      | REACHED | MFR Number | ADMIN LEAD TIME |              |              | MFR          | TOTAL | REMARKS  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     | MIN.  | 1-8-5 | MAX. | D +     |            | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |       | Production break due to quantities below the minimum sustaining rate of two vehicles per month. Possibility of FMS and Direct Sales during this timeframe may eliminate the break in production. |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | UDLP York, PA   |       |      |               |                       |                     | 2   | 3     | 5    |         |            |                 |              |              | 15           | 21    |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |       |      |               |                       |                     |   |       |      |         |            |                 |              |              |              |       |  |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |                  |       |               |                       |                     | P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |                 |              |              |       |         |     |     |     |     |     |     | Date: February 1998 |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|---------------------------------------|-----------------|------------------|-------|---------------|-----------------------|---------------------|---|-----------------|--------------|--------------|-------|---------|-----|-----|-----|-----|-----|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--|--|--|--|--|--|--|----|--|
| COST ELEMENTS                         | MFR             | FY               | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 04  |                 |              |              |       |         |     |     |     |     |     |     | Fiscal Year 05      |     |     |     |     |     |     |     |     |     |     |     | L A T E R |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     | Calendar Year 04  |                 |              |              |       |         |     |     |     |     |     |     | Calendar Year 05    |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     | OCT   | NOV             | DEC          | JAN          | FEB   | MAR     | APR | MAY | JUN | JUL | AUG | SEP | OCT                 | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |  |  |  |  |  |  |  |    |  |
| 1. Vehicle Manufacturing - Contrac    |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 96            | A     | 24            | 24                    |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 97            | A     | 24            | 24                    |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 98            | A     | 10            | 10                    |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 99            | A     | 15            | 15                    |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 00            | A     | 25            | 25                    |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY01             | A     | 25            | 25                    |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 02            | A     | 34            | 7                     | 27                  | 3   | 3               | 3            | 3            | 3     | 3       | 3   | 3   | 3   |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | 1               | FY 03            | A     | 45            | 0                     | 45                  |   |                 |              |              |       |         |     | 3   | 3   | 3   | 4   | 4   | 4                   | 4   | 4   | 4   | 4   |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
| TOTAL                                 |                 |                  |       | 202           | 130                   | 72                  |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  | 72 |  |
| MFR                                   |                 | PRODUCTION RATES |       |               |                       | REACHED             | MFR   | ADMIN LEAD TIME |              | MFR          | TOTAL | REMARKS |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       | NAME / LOCATION | MIN.             | 1-8-5 | MAX.          | D +                   | Number              | Prior 1 Oct.  | After 1 Oct.    | After 1 Oct. | After 1 Oct. |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
| 1                                     | UDLP York, PA   | 2                | 3     | 5             |                       |                     |   | 6               |              | 15           | 21    |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |
|                                       |                 |                  |       |               |                       |                     |   |                 |              |              |       |         |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |  |  |  |  |  |  |  |    |  |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: SMALL ARMS (SOLDIER ENH PROG) (GC0076)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 2.4     | 5.3     | 4.1     | 5.2     | 5.3     | 3.6     | 0.3     | 2.0     | 0.0         | 28.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 2.4     | 5.3     | 4.1     | 5.2     | 5.3     | 3.6     | 0.3     | 2.0     | 0.0         | 28.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 2.4     | 5.3     | 4.1     | 5.2     | 5.3     | 3.6     | 0.3     | 2.0     | 0.0         | 28.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** This program provides small arms equipment for the soldier, a HMMWV Mount, Dual Mount. The HMMWV Mount provides the soldier with a pedestal and a mount for firing the M249 Squad Automatic Weapon (SAW) and M60 Machine Gun from the M998 HMMWV and a mount for firing the M249 from the M1025/1026 HMMWV. The Dual Mount can be used in both the vehicular (Armament HMMWV) and ground mount application for the MK19 Grenade Machine Gun (GMG) and M2 Heavy Barrel Machine Gun.

**JUSTIFICATION:** Certain applications of the M998 HMMWV require that weapons be displayed and be available quickly for enemy confrontation. The field has devised several non-standard and possibly unsafe methods of mounting weapons on the M998. This program will provide a standard, supportable weapon mount. Military Police and certain infantry units currently mount the M60 Machine Gun on the M1025/1026. As the M60 is replaced by the M249 Machine Gun the need to mount the M249 on the M1025/1026 HMMWV arises. The Dual Mount will be fielded to scout platoons enabling them to install or switch weapons quickly in the event one vehicle goes down. In addition, procurement quantities have been increased to allow fielding to Infantry Anti-Armor and Military Police units. The system corrects the shortcomings of the current MK64 system allowing for bold and accurate traverse and elevation, further range (elevation) for the MK19, recoil attention of the M2 Machine Gun and capability for range card preparation.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>SMALL ARMS (SOLDIER ENH PROG)<br>(GC0076) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|---|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID  | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD  | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |   | \$000        | Each | \$   | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each | \$       |
| 1. Hardware                                       |  |   |              |      |  |              |      |                     |              |      |                        |              |      |          |
| MK93 MOD 1 DUAL MOUNT                             |  |   | 1600         | 1029 | 1555   | 221          | 103  | 2146                |              |      |                        | 2731         | 1241 | 2201     |
| Dual Mount - New Contract                         |  |   |              |      |  | 1300         | 500  | 2600                |              |      |                        |              |      |          |
| HMMWV M249 Mount M998 (Quantity)                  |  |   | 197          | 120  | 1642   | 1254         | 660  | 1900                | 1583         | 660  | 2398                   |              |      |          |
| HMMWV Mount M1025/1026 (Quantity)                 |  |   | 36           | 80   | 450  | 660          | 1320 | 500                 | 583          | 1740 | 335                    | 905          | 2550 | 355      |
| MK93 MOD1 (ECP)                                   |  |   |              |      |  |              |      |                     |              |      |                        | 390          |      |          |
| 2. ESIP   |  |   |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Dual Mount  |  |   | 225          |      |  | 459          |      |                     |              |      |                        | 270          |      |          |
| HMMWV M249 Mount                                  |  |   | 117          |      |  | 398          |      |                     | 560          |      |                        | 250          |      |          |
| 3. Testing  |  |   |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Dual Mount  |  |   | 50           |      |  |              |      |                     |              |      |                        | 50           |      |          |
| HMMWV M249 Mount                                  |  |   |              |      |  | 450          |      |                     | 550          |      |                        | 207          |      |          |
| 4. Integrated Logistics Support                   |  |   |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Dual Mount  |  |   | 25           |      |  | 20           |      |                     |              |      |                        |              |      |          |
| HMMWV M249 Mount                                  |  |   | 47           |      |  | 153          |      |                     | 50           |      |                        | 200          |      |          |
| Materiel Release/Engineering Studies              |  |   | 53           |      |  | 293          |      |                     | 537          |      |                        |              |      |          |
| 5. Fielding                                       |  |   |              |      |  |              |      |                     |              |      |                        |              |      |          |
| HMMWV M249 Mount                                  |  |   |              |      |  | 130          |      |                     | 230          |      |                        | 230          |      |          |
| <b>TOTAL</b>                                      |  |   | <b>2350</b>  |      |  | <b>5338</b>  |      |                     | <b>4093</b>  |      |                        | <b>5233</b>  |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 Weapon System Type:  
 P-1 Line Item Nomenclature: SMALL ARMS (SOLDIER ENH PROG) (GC0076)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|--|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| DUAL MOUNT/FY96                      | Fraser Maunfacturing Corp              | C/FFP                    | ACALA           | May-96     | Jan-98                 | 1029     | 1555         | Yes              | Yes              |                |
| DUAL MOUNT/FY97                      | Fraser Maunfacturing Corp              | C/FFP                    | ACALA           | May-97     | Jul-98                 | 366      | 2146         |                  |                  |                |
| DUAL MOUNT/FY97 New Contract         |  |                          |                 | Sep-97     | Dec-98                 | 500      | 2600         |                  |                  |                |
| HMMWV M249 MOUNT/FY96<br>M6 Pedestal | Ramo Manufacture Inc.<br>Nashville, Tn | C/FFP                    | ARDEC           | Jul-96     | Apr-97                 | 120      | 1642         | Yes              | No               |                |
| M197                                 | Nautic-All                             | C/FFP                    | ARDEC           | Aug-96     | Mar-97                 | 200      | 450          |                  |                  |                |
| HMMWV M249 MOUNT/FY97<br>M6 Pedestal | Ramo Manufacture Inc.<br>Nashville, Tn | C/FFP<br>(Option)        | ARDEC           | Sep-97     | Feb-98                 | 660      | 1900         | Yes              | No               |                |
| M197 Mount                           | Ma-Tech Inc. Hebron, Va                | C/FFP                    | ARDEC           | Sep-97     | Feb-98                 | 2005     | 500          |                  |                  |                |
| HMMWV M249 MOUNT/FY98<br>M6 Pedestal | Ramo Manufacture Inc.<br>Nashville, Tn | C/FFP<br>(Option)        | ARDEC           | Mar-98     | Jan-99                 | 660      | 2064         |                  |                  |                |
| M197 Mount                           | Ma-Tech Inc, Hebron, Va                | SS/8A                    | ACALA           | Jun-98     | Dec-98                 | 2400     | 335          |                  |                  | Jan-98         |
| HMMWV M249 MOUNT/FY99<br>M197 Mount  | Ma-Tech Inc, Hebron, Va                | C/FFP                    | ACALA           | Jan-99     | Dec-99                 | 2550     | 355          |                  |                  |                |
| Dual Mount/FY99                      | TBS                                    | C/FFP                    | ACALA           | Jan-99     | Jan-00                 | 1241     | 2201         |                  |                  |                |

REMARKS:

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)

Program Elements for Code B Items: Code: B Other Related Program Elements: 64649

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 2       | 6       | 7       | 9       | 13      | 18      | 22      | 23      | 365         | 465        |
| Gross Cost       | 0.0         | 0.0     | 14.6    | 51.4    | 41.3    | 50.4    | 68.6    | 86.5    | 106.5   | 116.5   | 2112.0      | 2647.8     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 14.6    | 51.4    | 41.3    | 50.4    | 68.6    | 86.5    | 106.5   | 116.5   | 2112.0      | 2647.8     |
| Initial Spares   |             |         |         |         | 0.9     | 0.9     | 1.4     | 1.4     | 1.8     | 2.1     | 36.2        | 44.6       |
| Total Proc Cost  | 0.0         | 0.0     | 14.6    | 51.4    | 42.2    | 51.3    | 70.0    | 87.9    | 108.3   | 118.6   | 2148.2      | 2692.4     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         | 7.3     | 8.6     | 5.9     | 5.6     | 5.3     | 4.8     | 4.8     | 5.1     | 5.8         | 5.7        |

**DESCRIPTION:** The Wolverine (Heavy Assault Bridge) is a 26 meter (79 feet) Military Load Class 70 bridge transported on a modified M1A2 System Enhancement Package (SEP) Abrams Tank chassis. The bridge is capable of spanning gaps up to 24 meters on both prepared and unprepared abutments and can be placed on a bearing surface over its entire length. It is launched under armor within five minutes and can be retrieved, from either end, in less than ten minutes. The Wolverine is operated by a crew of two soldiers and will be employed by Combat Engineer units in both offensive and defensive combined arms operations. Its mission is to provide gap crossing capability for heavy maneuver forces. It is planned to support the Abrams Tank System and the Bradley Fighting Vehicle and is compatible with these systems in mobility and survivability.

**JUSTIFICATION:** During Operation Desert Storm, it became evident that the current Army bridging system was deficient in gap spanning capability and required increased load carrying capability. The Wolverine will replace the Armored Vehicle Launched Bridge (AVLB) providing increased worldwide gap crossing capabilities, increased load capacity to support Military Load Class 70 vehicles and improved mobility, survivability, and logistics compatibility. The Wolverine enhances the Combined Arms Team's ability to move where it wants, multiplying its combat capabilities. First Unit Equipped will be in FY00 at a quantity of 12 vehicles.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD)<br>(GZ3250) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Vehicle Manufacturing - Contractor             |  | B  | 10048        | 2    | 5024  | 32618        | 6    | 5436                | 27376        | 7    | 3911                   | 35261        | 9    | 3918     |
| 2. Vehicle Manufacturing - ANAD                   |  |  |              |      |   | 1212         | 6    | 202                 | 1600         | 7    | 229                    | 2100         | 9    | 233      |
| 3. Vehicle Manufacturing - GFE                    |  |  | 1861         |      |   |              |      |                     | 2260         | 7    | 323                    | 2940         | 9    | 327      |
| 4. Contract Engineering                           |  |  | 1330         |      |   | 15513        |      |                     | 7000         |      |                        | 6990         |      |          |
| 5. Engineering Change Orders                      |  |  |              |      |   |              |      |                     | 730          |      |                        | 950          |      |          |
| 6. Project Mgmt Admin - Core                      |  |  | 482          |      |   | 844          |      |                     | 730          |      |                        | 750          |      |          |
| 7. Project Mgmt Admin - OGA                       |  |  | 890          |      |   | 1204         |      |                     | 1260         |      |                        | 1160         |      |          |
| 8. New Equipment Training                         |  |  |              |      |   |              |      |                     | 340          |      |                        | 230          |      |          |
| 9. Total Package Fielding                         |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 10. Transportation                                |  |  |              |      |   | 10           |      |                     | 15           |      |                        | 20           |      |          |
| <b>TOTAL</b>                                      |  |  | <b>14611</b> |      |   | <b>51401</b> |      |                     | <b>41311</b> |      |                        | <b>50401</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked**  
 Weapon System Type: **Combat Vehicles**  
 P-1 Line Item Nomenclature: **HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)**

| WBS Cost Elements:<br>Fiscal Years    | Contractor and Location                 | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |     |        |  |
|---------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|-----|--------|--|
| 1. Vehicle Manufacturing - Contractor | General Dynamics Land Sys<br>Lima, Ohio | SS-CPFF                  | TACOM           | Aug-96     |                        | 2        | 5024            | YES              |                  |                |     |        |  |
| FY 96                                 |   |                          |                 |            |                        | 4        | *6199           | YES              |                  |                |     |        |  |
| FY 97                                 |   |                          |                 |            |                        | 2        | *3911           | YES              |                  | Aug-97         |     |        |  |
| FY98                                  |   |                          |                 |            |                        | M2(1)    | TACOM           | Jan-98           |                  |                |     |        |  |
| FY99                                  |   |                          |                 |            |                        | SS-FFP   | TACOM           | Jan-98           | 7                | 3911           | YES | Aug-97 |  |
|                                       |   | M2(1)                    | TACOM           | Nov-98     |                        | 9        | 3918            | YES              |                  | Jul-98         |     |        |  |
| 2. Vehicle Manufacturing - ANAD       | Anniston Army Depot                     |                          |                 |            |                        | **6      | 202             |                  |                  |                |     |        |  |
| FY 97                                 |   |                          |                 |            |                        | 7        | 229             |                  |                  |                |     |        |  |
| FY 98                                 |   |                          |                 |            |                        | 9        | 233             |                  |                  |                |     |        |  |
| FY 99                                 |   |                          |                 |            |                        |          |                 |                  |                  |                |     |        |  |
| 3. Vehicle Manufacturing - GFE        | Government Furnished Equipment          |                          |                 |            |                        |          |                 |                  |                  |                |     |        |  |
| FY 96                                 |   |                          |                 |            |                        |          |                 |                  |                  |                |     |        |  |
| FY 97                                 |   |                          |                 |            |                        |          |                 |                  |                  |                |     |        |  |
| FY 98                                 |   |                          |                 |            |                        | 7        | 323             |                  |                  |                |     |        |  |
| FY 99                                 |   |                          |                 |            |                        | 9        | 327             |                  |                  |                |     |        |  |

**REMARKS:** \*The first four vehicles of the FY97 funds were purchased as an option in Dec 96 on the Aug 96 Pilot Vehicle contract. The unit price is much greater due to the nonrecurring costs to be incurred in preparing for production such as tooling costs. The last 2 vehicles will be included in the Jan 98 MYP award at the same unit price as the FY98 buy.  
 \*\*PM Abrams provided PM Wolverine with two refurbished chassis for the first two LRIP vehicles.

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |       |       |       |       |       |       |       |       |       |       |       |       | Date: February 1998 |       |       |       |           |       |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|-------|-------|-------|-----------|-------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96   |       |       |       |       |       |       |       |       |       |       |       |       | Fiscal Year 97      |       |       |       | L A T E R |       |
|                                       |     |       |      |               |                       |                     | Calendar Year 96   |       |       |       |       |       |       |       |       |       |       |       |       | Calendar Year 97    |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     | O C T  | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V               | D E C | J A N | F E B |           | M A R |
| 1. Vehicle Manufacturing - Contrac    |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 96 | A    | 2             | 0                     | 2                   |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 97 | A    | 6             | 0                     | 6                   |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 98 | A    | 7             | 0                     | 7                   |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 99 | A    | 9             | 0                     | 9                   |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 00 | A    | 13            | 0                     | 13                  |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 01 | A    | 18            | 0                     | 18                  |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 02 | A    | 22            | 0                     | 22                  |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       | 1   | FY 03 | A    | 23            | 0                     | 23                  |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
|                                       |     |       |      |               |                       |                     |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           |       |
| TOTAL                                 |     |       |      | 100           |                       | 100                 |  |       |       |       |       |       |       |       |       |       |       |       |       |                     |       |       |       |           | 100   |

  

|     |   |                  |       | O C T | N O V      | D E C      | J A N           | F E B        | M A R            | A P R              | M A Y   | J U N | J U L | A U G | S E P | O C T | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |
|-----|---|------------------|-------|-------|------------|------------|-----------------|--------------|------------------|--------------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MFR | NAME / LOCATION   | PRODUCTION RATES |       |       | REACHED D+ | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   | MIN.             | 1-8-5 | MAX.  |            |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 1   | GENERAL DYNAMICS LAND SYSTEMS   | N/A*             | 8     | N/A*  |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     | LIMA, OH  |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|     |   |                  |       |       |            |            |                 |              |                  |                    |         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |     |     |     |     |     |     |     |     |     |     |     |                  |     |     | Date: February 1998 |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 99   |     |     |                     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |     |       |      |               |                       |                     | Calendar Year 98   |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 99 |     |     |                     |     |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN                 | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 96 | A    | 2             | 0                     | 2                   |  |     |     |     |     |     |     |     |     |     |     |     |                  |     | 1   | 1                   |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 97 | A    | 6             | 0                     | 6                   |  |     |     | A   |     |     |     |     |     |     |     |     |                  |     |     | 2                   | 2   | 1   | 1   |     |     |     |     |     |           |
|                                       | 1   | FY 98 | A    | 7             | 0                     | 7                   |  |     |     | A   |     |     |     |     |     |     |     |     |                  |     |     |                     |     |     |     | 7   |     |     |     |     |           |
|                                       | 1   | FY 99 | A    | 9             | 0                     | 9                   |  |     |     |     |     |     |     |     |     |     | A   |     |                  |     |     |                     |     |     |     | 9   |     |     |     |     |           |
|                                       | 1   | FY 00 | A    | 13            | 0                     | 13                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                     |     |     |     | 13  |     |     |     |     |           |
|                                       | 1   | FY 01 | A    | 18            | 0                     | 18                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                     |     |     |     | 18  |     |     |     |     |           |
|                                       | 1   | FY 02 | A    | 22            | 0                     | 22                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                     |     |     |     | 22  |     |     |     |     |           |
|                                       | 1   | FY 03 | A    | 23            | 0                     | 23                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                     |     |     |     | 23  |     |     |     |     |           |
| TOTAL                                 |     |       |      | 100           |                       | 100                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     | 1   | 1                   |     | 2   | 2   | 1   | 1   | 92  |     |     |           |

  

| MFR | NAME / LOCATION  | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|--|------------------|-------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---------|
|     |  | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | GENERAL DYNAMICS LAND SYSTEMS  | N/A*             | 8     | N/A* |             |            | 6               | 3            | 19               | 22                 |         |
|     | LIMA, OH   |                  |       |      |             |            |                 | 9            | 18               | 27                 |         |
|     | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |                  |       |      |             |            |                 |              |                  |                    |         |
|     |  |                  |       |      |             |            |                 |              |                  |                    |         |
|     |  |                  |       |      |             |            |                 |              |                  |                    |         |
|     |  |                  |       |      |             |            |                 |              |                  |                    |         |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |      |               |                       | P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |                  |       |      |         |            |                 |              |              |              |         |     | Date: February 1998 |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|--|-------|------|---------------|-----------------------|--|------------------|-------|------|---------|------------|-----------------|--------------|--------------|--------------|---------|-----|---------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR  | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT  | Fiscal Year 00   |       |      |         |            |                 |              |              |              |         |     |                     | Fiscal Year 01   |     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |  |       |      |               |                       |  | Calendar Year 00 |       |      |         |            |                 |              |              |              |         |     |                     | Calendar Year 01 |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  | OCT              | NOV   | DEC  | JAN     | FEB        | MAR             | APR          | MAY          | JUN          | JUL     | AUG | SEP                 | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |  |       |      |               |                       |  |                  |       |      |         |            |                 |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 96 | A    | 2             | 2                     |  |                  |       |      |         |            |                 |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 97 | A    | 6             | 6                     |  |                  |       |      |         |            |                 |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 98 | A    | 7             | 0                     | 7  | 1                | 1     | 1    | 1       | 1          | 1               | 1            |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 99 | A    | 9             | 0                     | 9  |                  |       |      |         |            |                 | 1            | 1            |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 00 | A    | 13            | 0                     | 13   |                  | A     |      |         |            |                 | A            |              |              |         |     |                     |                  |     |     |     |     |     | 1   | 1   | 1   | 1   | 1   | 8   |           |
|                                       | 1  | FY 01 | A    | 18            | 0                     | 18   |                  |       |      |         |            |                 |              |              |              |         |     | A                   |                  |     |     |     |     |     |     |     |     |     | 18  |     |           |
|                                       | 1  | FY 02 | A    | 22            | 0                     | 22   |                  |       |      |         |            |                 |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     | 22  |     |           |
|                                       | 1  | FY 03 | A    | 23            | 0                     | 23   |                  |       |      |         |            |                 |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     | 23  |     |           |
| TOTAL                                 |  |       |      | 100           | 8                     | 92   | 1                | 1     | 1    | 1       | 1          | 1               | 1            | 1            | 1            | 1       | 1   | 1                   | 1                | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 71  |     |           |
| MFR                                   | NAME / LOCATION  |       |      |               |                       |  | PRODUCTION RATES |       |      | REACHED | MFR Number | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  | MIN.             | 1-8-5 | MAX. | D +     |            | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | GENERAL DYNAMICS LAND SYSTEMS  |       |      |               |                       |  | N/A*             | 8     | N/A* |         |            | INITIAL         |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | LIMA, OH   |       |      |               |                       |  |                  |       |      |         |            | REORDER         | 8            | 1            | 18           | 19      |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  |                  |       |      |         |            | INITIAL         | 2            | 7            | 18           | 25      |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  |                  |       |      |         |            | REORDER         |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |       |      |               |                       |  |                  |       |      |         |            | INITIAL         |              | 9            | 18           | 27      |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  |                  |       |      |         |            | REORDER         |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  |                  |       |      |         |            | INITIAL         |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |  |                  |       |      |         |            | REORDER         |              |              |              |         |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |     |     |     |     |     |     |     |     |     |     |     |                  | Date: February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 02   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 03   |                     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |     |       |      |               |                       |                     | Calendar Year 02   |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 03 |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 96 | A    | 2             | 2                     |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 97 | A    | 6             | 6                     |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 98 | A    | 7             | 7                     |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 99 | A    | 9             | 9                     |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 00 | A    | 13            | 5                     | 8                   | 1  | 1   | 1   |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 01 | A    | 18            | 0                     | 18                  |  |     |     |     |     |     | 1   | 2   | 1   | 2   | 1   | 2   | 2                | 1                   | 2   | 1   | 1   | 2   |     |     |     |     |     |     |           |
|                                       | 1   | FY 02 | A    | 22            | 0                     | 22                  |  | A   |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     | 2   | 1   | 2   | 2   | 2   | 13  |     |     |           |
|                                       | 1   | FY 03 | A    | 23            | 0                     | 23                  |  |     |     |     |     |     |     |     |     |     |     | A   |                  |                     |     |     |     |     |     |     | 23  |     |     |     |           |
| TOTAL                                 |     |       |      | 100           | 29                    | 71                  | 1  | 1   | 1   | 1   | 1   | 1   | 2   | 1   | 2   | 1   | 2   | 1   | 2                | 2                   | 1   | 2   | 1   | 1   | 2   | 2   | 1   | 2   | 2   | 2   | 36        |

  

| MFR | NAME / LOCATION  | PRODUCTION RATES |       |      | REACHED D+ | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|--|------------------|-------|------|------------|------------|-----------------|--------------|------------------|--------------------|---------|
|     |  | MIN.             | 1-8-5 | MAX. |            |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | GENERAL DYNAMICS LAND SYSTEMS  | N/A*             | 8     | N/A* |            |            | 8               | 1            | 18               | 19                 |         |
|     | LIMA, OH   |                  |       |      |            |            |                 |              |                  |                    |         |
|     | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |                  |       |      |            |            |                 | 9            | 18               | 27                 |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |      |               |                       |                     | P-1 Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |         |              |                 |              |     |              |              |         |     |     |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|--|-------|------|---------------|-----------------------|---------------------|---|---------|--------------|-----------------|--------------|-----|--------------|--------------|---------|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR  | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 04  |         |              |                 |              |     |              |              |         |     |     |     | Fiscal Year 05   |                        |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |  |       |      |               |                       |                     | Calendar Year 04  |         |              |                 |              |     |              |              |         |     |     |     | Calendar Year 05 |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     | OCT   | NOV     | DEC          | JAN             | FEB          | MAR | APR          | MAY          | JUN     | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |  |       |      |               |                       |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 96 | A    | 2             | 2                     |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 97 | A    | 6             | 6                     |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 98 | A    | 7             | 7                     |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 99 | A    | 9             | 9                     |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 00 | A    | 13            | 13                    |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 01 | A    | 18            | 18                    |                     |   |         |              |                 |              |     |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 02 | A    | 22            | 9                     | 13                  | 2   | 1       | 2            | 2               | 2            | 2   |              |              |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 03 | A    | 23            | 0                     | 23                  |   |         |              |                 |              |     | 2            | 2            | 2       | 2   | 2   | 2   | 2                | 2                      | 2   | 2   | 2   |     |     |     |     |     |     |     |           |
| TOTAL                                 |  |       |      | 100           | 64                    | 36                  | 2   | 1       | 2            | 2               | 2            | 2   | 2            | 2            | 2       | 2   | 2   | 2   | 2                | 1                      | 2   | 2   | 2   | 2   |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     | OCT   | NOV     | DEC          | JAN             | FEB          | MAR | APR          | MAY          | JUN     | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| MFR                                   | NAME / LOCATION  |       |      |               | PRODUCTION RATES      |                     |   | REACHED | MFR          | ADMIN LEAD TIME |              |     | MFR          | TOTAL        | REMARKS |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      | MIN.          | 1-8-5                 | MAX.                | D +   | Number  | Prior 1 Oct. |                 | After 1 Oct. |     | After 1 Oct. | After 1 Oct. |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | GENERAL DYNAMICS LAND SYSTEMS  |       |      |               | N/A*                  | 8                   | N/A*  |         |              |                 |              |     |              |              | INITIAL |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | LIMA, OH   |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | REORDER |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | INITIAL |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | REORDER |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | INITIAL |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | REORDER |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | INITIAL |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   |         |              |                 |              |     |              |              | REORDER |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |

| Exhibit P-40, Budget Item Justification Sheet   |             |                |                |                |                                 |   |         | Date: February 1998 |         |         |             |            |
|---|-------------|----------------|----------------|----------------|---------------------------------|---|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 3 / Spares and Repair Parts  |             |                |                |                |                                 | P-1 Item Nomenclature:<br>SPARES AND REPAIR PARTS (WTCV) (GE0150) |         |                     |         |         |             |            |
| Program Elements for Code B Items:  |             |                |                | Code:          | Other Related Program Elements: |   |         |                     |         |         |             |            |
|   | Prior Years | FY 1995        | FY 1996        | FY 1997        | FY 1998                         | FY 1999   | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Gross Cost  | 0.0         | 0.0            | 25.9           | 19.9           | 20.2                            | 23.2  | 26.4    | 27.9                | 35.3    | 37.3    | 0.0         | 216.1      |
| Less PY Adv Proc  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Plus CY Adv Proc  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Net Proc (P-1)  | 0.0         | 0.0            | 25.9           | 19.9           | 20.2                            | 23.2  | 26.4    | 27.9                | 35.3    | 37.3    | 0.0         | 216.1      |
| Initial Spares  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Total Proc Cost   | 0.0         | 0.0            | 25.9           | 19.9           | 20.2                            | 23.2  | 26.4    | 27.9                | 35.3    | 37.3    | 0.0         | 216.1      |
| Flyaway U/C   |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Wpn Sys Proc U/C  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| <p><b>Description:</b> Provides for procurement of spares to support initial fielding of new or modified end items.</p> <p><b>Justification:</b> The funds in this account procure depot level reparable (DLRs) secondary items from the Supply Management, Army (SMA) revolving fund (formally Army Stock Fund). To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:</p> |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| <u>System</u>   |             | <u>FY 1996</u> | <u>FY 1997</u> | <u>FY 1998</u> | <u>FY 1999</u>                  |   |         |                     |         |         |             |            |
| GE0161 M1A2   |             | 17.1           | 9.2            | 13.7           | 9.8                             |   |         |                     |         |         |             |            |
| GE0163 BFVS   |             | 4.9            | 2.3            | .3             | 7.1                             |   |         |                     |         |         |             |            |
| GE0167 M109   |             | 2.4            | 6.4            | 3.6            |                                 |   |         |                     |         |         |             |            |
| GE0171 IRV  |             | 1.6            | 2.0            | .8             | 2.9                             |   |         |                     |         |         |             |            |
| GEO173 C2V  |             |                |                | .9             | 2.5                             |   |         |                     |         |         |             |            |
| GEO177 HAB  |             |                |                | .9             | .9                              |   |         |                     |         |         |             |            |
| Total   |             | 25.9           | 19.9           | 20.2           | 23.2                            |   |         |                     |         |         |             |            |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 146.2       | 0.0     | 0.0     | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0         | 150.3      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 146.2       | 0.0     | 0.0     | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0         | 150.3      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 146.2       | 0.0     | 0.0     | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0         | 150.3      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Armored Vehicle Launched Bridge (AVLB) is the current authorized standard assault bridge supporting heavy forces. AVLBs are primarily assigned to Combat Engineering training and War Reserve sites.

**JUSTIFICATION:** In order to fully modify the fleet, 35 vehicles, 20% of the Active Component and high priority War Reserve units need modifications. The Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) will improve the reliability and extend engine life. The other two modifications, the AN/VVS-2 Driver's Night Viewer (DNV) and Smoke Grenade Launcher will improve the tactical maneuvering and operations capability of the AVLB. The DNV will improve the night vision capability of the vehicle driver; the Smoke Grenade Launcher allows the AVLB to advance, deploy, and retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable.

Exhibit P-40M Budget Item Justification Sheet

Date February 1998

Appropriation / Budget Activity/Serial No.  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

P-1 Item Nomenclature  
ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)

Program Elements for Code B Items

Code

Other Related Program Elements

| Description    |                 | Fiscal Years |         |         |         |         |         |         |         |     |       |
|----------------|-----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO.       | Classification  | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| AVLB Block MOD |                 |              |         |         |         |         |         |         |         |     |       |
| 1-97-05-4531   | Oper Capability | 0.0          | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0 | 4.0   |
| Totals         |                 | 0.0          | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0 | 4.0   |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |

| INDIVIDUAL MODIFICATION  |  |                   |   |   |   |                          |   |   |   | Date                          |   | February 1998 |   |                      |                     |   |   |                |   |        |    |
|--|--|-------------------|---|---|---|--------------------------|---|---|---|-------------------------------|---|---------------|---|----------------------|---------------------|---|---|----------------|---|--------|----|
| MODIFICATION TITLE: AVLB Block MOD 1-97-05-4531  |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| MODELS OF SYSTEMS AFFECTED: M60A1/M48A5 AVLB   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| DESCRIPTION / JUSTIFICATION:<br><br>In order to fully modify the fleet, 35 vehicles, 20% of the Active Component and high priority War Reserve units need modifications. The Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) will improve the reliability and extend engine life. other two modifications, the AN/VVS-2 Driver's Night Viewer (DNV) and Smoke Grenade Launcher will improve the tactical maneuvering and operations capability of the AVLB. The DNV will improve the night vision capability of the vehicle driver; the Smoke Grenade Launcher allows the AVLB to advance, deploy, and retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable. |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| TDP Review   |  |                   |   |   |   |                          |   |   |   | <u>PLANNED</u><br>February 98 |   |               |   |                      | <u>ACCOMPLISHED</u> |   |   |                |   |        |    |
| Installation Schedule:   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
|  |  | FY 1997           |   |   |   | FY 1998                  |   |   |   | FY 1999                       |   |               |   | FY 2000              |                     |   |   | FY 2001        |   |        |    |
|  |  | Pr Yr             |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| <b>Totals</b>  |  | 1                 | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                             | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 | 1              | 2 | 3      | 4  |
| <b>Inputs</b>  |  |                   |   |   |   |                          |   |   |   |                               |   |               |   | 2                    | 2                   | 2 | 5 | 5              | 5 | 5      | 9  |
| <b>Outputs</b>   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      | 2                   | 2 | 2 | 5              | 5 | 5      | 5  |
|  |  | FY 2002           |   |   |   | FY 2003                  |   |   |   | FY 2004                       |   |               |   | FY 2005              |                     |   |   | To<br>Complete |   | Totals |    |
|  |  | 1                 | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                             | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 |                |   |        |    |
| <b>Inputs</b>  |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        | 35 |
| <b>Outputs</b>   |  | 9                 |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        | 35 |
| METHOD OF IMPLEMENTATION:  |  | Depot/Depot Teams |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 3 Months                      |   |               |   | PRODUCTION LEADTIME: |                     |   |   | 6 Months       |   |        |    |
| Contract Dates:  |  | FY 1997           |   |   |   | FY 1998                  |   |   |   | FY 1999                       |   |               |   | June 99              |                     |   |   |                |   |        |    |
| Delivery Date:   |  | FY 1997           |   |   |   | FY 1998                  |   |   |   | FY 1999                       |   |               |   | October 99           |                     |   |   |                |   |        |    |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): AVLB Block MOD 1-97-05-4531

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |     |
|---|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|-----|
|   | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |     |
| RDT&E                                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| PROCUREMENT                               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Kit Quantity                              |                   |    |         |    |         |    | 6       |     | 20      |     | 9       |     |         |    |         |    |     |    |       | 35 |     |
| Installation Kits                         |                   |    |         |    |         |    |         | 0.3 |         | 0.9 |         | 0.5 |         |    |         |    |     |    |       |    | 1.7 |
| Installation Kits, Nonrecurring Equipment |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Equipment, Nonrecurring                   |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Engineering Change Orders                 |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Data                                      |                   |    |         |    |         |    |         | 0.7 |         | 0.1 |         | 0.2 |         |    |         |    |     |    |       |    | 1.0 |
| Training Equipment                        |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Support Equipment                         |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Other                                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Interim Contractor Support                |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Installation of Hardware                  |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1996 & Prior Eqpt -- Kits              |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1997 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1998 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1999 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 2000 Eqpt -- kits                      |                   |    |         |    |         |    |         |     | 6       | 0.2 |         |     |         |    |         |    |     |    |       | 6  | 0.2 |
| FY 2001 Eqpt -- kits                      |                   |    |         |    |         |    |         |     | 5       | 0.1 | 15      | 0.6 |         |    |         |    |     |    |       | 20 | 0.7 |
| FY 2002 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     | 9       | 0.4 |         |    |         |    |     |    |       | 9  | 0.4 |
| FY 2003 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| TC Equip-Kits                             |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Total Installment                         |                   |    |         |    |         |    |         |     | 11      | 0.3 | 24      | 1.0 |         |    |         |    |     |    |       | 35 | 1.3 |
| Total Procurement Cos                     |                   |    |         |    |         |    |         | 1.0 |         | 1.3 |         | 1.7 |         |    |         |    |     |    |       |    | 4.0 |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 48002       | 8705    | 9430    | 3802    | 406     | 1525    |         |         |         |         |             | 71870      |
| Gross Cost       | 117.2       | 21.1    | 27.5    | 12.1    | 5.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 187.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 117.2       | 21.1    | 27.5    | 12.1    | 5.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 187.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 117.2       | 21.1    | 27.5    | 12.1    | 5.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 187.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Squad Automatic Weapon (SAW) is a lightweight (22 pounds with 200 rounds of ammunition), 5.56mm, one-man operated weapon capable of delivering a sustained volume of automatic, accurate, and lethal fire at ranges of up to 800 meters. The Army configuration was changed Oct 89 to include a spare barrel, additional heat shield and barrel bag.

**JUSTIFICATION:** The sustained fire capability and increased range are urgently needed throughout infantry rifle squads in order to enhance their survivability. This lightweight, highly mobile machine gun will be used by infantry, light infantry, airborne infantry, mechanized infantry and elements of the air cavalry units, as well as non-infantry units. This procurement profile will equip selected elements of the above mentioned units on a priority basis.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>MACHINE GUN, 5.56MM (SAW) (G12900) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID  | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD  | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |   | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Hardware                                       |  | A   | 24817        | 9430 | 3   | 10006        | 3802 | 3                   | 1068         | 406  | 3                      | 4185         | 1525 | 3        |
| 2. GFM  |  |   | 626          |      |   | 186          |      |                     | 8            |      |                        |              |      |          |
| 3. Engineering Support<br>- In House Support      |  |   | 134          |      |   | 145          |      |                     | 341          |      |                        | 78           |      |          |
| 4. Quality Assurance (ARDEC)                      |  |   |              |      |   | 65           |      |                     | 89           |      |                        | 21           |      |          |
| 5. Testing (TECOM)                                |  |   | 115          |      |   | 101          |      |                     | 100          |      |                        | 60           |      |          |
| 6. Engineering Change Proposal (ECP's)            |  |   |              |      |   | 162          |      |                     | 2200         |      |                        | 10           |      |          |
| 7. ILS  |  |   | 65           |      |   | 65           |      |                     | 60           |      |                        | 40           |      |          |
| 8. Fielding                                       |  |   | 1661         |      |   | 1086         |      |                     | 1539         |      |                        | 100          |      |          |
| 9. TDP Maintenance                                |  |   | 58           |      |   | 50           |      |                     | 50           |      |                        |              |      |          |
| 10. Storage                                       |  |   |              |      |   | 35           |      |                     |              |      |                        |              |      |          |
| 11. Refurbishment                                 |  |   | 9            |      |   |              |      |                     |              |      |                        |              |      |          |
| 12. Engr Study                                    |  |   |              |      |   | 149          |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |   | <b>27485</b> |      |   | <b>12050</b> |      |                     | <b>5455</b>  |      |                        | <b>4494</b>  |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
February 1998

Appropriation / Budget Activity/Serial No:  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and  
Other Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature:  
MACHINE GUN, 5.56MM (SAW) (G12900)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--------------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Hardware<br>FY 96               | FN Mfg. Co., Inc., Columbia SC | SS/FFP<br>M-3(1)         | ACALA           | Aug-96     | Jan-97                 | 9430     | 3               | Yes              | No               |                |
| FY 97                              | FN Mfg. Co., Inc., Columbia SC | SS/FFP<br>M-3(2)         | ACALA           | Dec-96     | Sep-98                 | 3802     | 3               | Yes              | No               |                |
| FY 98                              | FN Mfg. Co., Inc., Columbia SC | SS/FFP<br>M-3(3)         | ACALA           | Dec-98     | Jun-99                 | 406      | 3               | Yes              | No               |                |
| FY 99                              | FN Mfg. Co., Inc., Columbia SC | SS/FFP                   | ACALA           | Jan-99     | Jul-99                 | 1525     | 3               | Yes              | No               |                |

REMARKS:

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |                  |                |               |                       |                     | P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900) |              |                  |                    |         |     |     |     |     |     |     |     | Date: February 1998 |     |     |     |     |     |     |     |     |     |     |     |           |     |
|---------------------------------------|--|------------------|----------------|---------------|-----------------------|---------------------|---|--------------|------------------|--------------------|---------|-----|-----|-----|-----|-----|-----|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|
| COST ELEMENTS                         | MFR  | FY               | SERV           | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96  |              |                  |                    |         |     |     |     |     |     |     |     | Fiscal Year 97      |     |     |     |     |     |     |     |     |     |     |     | L A T E R |     |
|                                       |  |                  |                |               |                       |                     | Calendar Year 96  |              |                  |                    |         |     |     |     |     |     |     |     | Calendar Year 97    |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | OCT   | NOV          | DEC              | JAN                | FEB     | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                 | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |     |
| Hardware                              | 1  | 95&Pr            | A              | 47.6          | 35.2                  | 12.4                | 0.8   | 0.8          | 0.8              | 0.8                | 0.8     | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8                 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 |     |     |     |     |     |     |           | 0.0 |
|                                       | 2  | 95&Pr            | A              | 9.1           | 9.1                   |                     |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       | 1  | 95&Pr            | MC             | 2.5           | 2.5                   |                     |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       | 1  | 95&Pr            | AF             | 2.5           | 2.5                   |                     |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       | 1  | 95&Pr            | SDAF           | 0.5           | 0.5                   |                     |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       | 1  | 95&Pr            | FMS            | 0.2           | 0.2                   |                     |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       | 1  | FY 96            | A              | 9.4           |                       | 9.4                 |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5       | 5.4 |
|                                       | 1  | FY 97            | A              | 3.8           |                       | 3.8                 |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           | 3.8 |
|                                       | 1  | FY98             | A              | 0.4           |                       | 0.4                 |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           | 0.4 |
|                                       | 1  | FY99             | A              | 1.5           |                       | 1.5                 |   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           | 1.5 |
| <b>Total</b>                          |  |                  |                | <b>77.5</b>   | <b>50.0</b>           | <b>27.5</b>         | 0.8   | 0.8          | 0.8              | 0.8                | 0.8     | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8                 | 0.8 | 0.8 | 0.8 | 0.9 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 11.1      |     |
|                                       |  |                  |                |               |                       |                     | OCT   | NOV          | DEC              | JAN                | FEB     | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                 | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |     |
| MFR                                   | NAME / LOCATION                              | PRODUCTION RATES |                |               | REACHED D+            | MFR Number          | ADMIN LEAD TIME   |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  | MIN.             | 1-8-5          | MAX.          |                       |                     | Prior 1 Oct.  | After 1 Oct. |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
| 1                                     | FN Mfg Co. Inc. Columbia S.C.                | 0.4              | 1.2            | 2.4           | 18                    | 1                   | INITIAL   | 7            | 10               | 6                  | 16      |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | REORDER   | 7            | 2                | 22                 | 24      |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
| 2                                     | Fabrique Nationale Nouveau, Herstal, Belgium |                  | (one time buy) |               |                       |                     | INITIAL   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | REORDER   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | INITIAL   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | REORDER   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | INITIAL   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | REORDER   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | INITIAL   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |
|                                       |  |                  |                |               |                       |                     | REORDER   |              |                  |                    |         |     |     |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |     |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               | P-1 Item Nomenclature:<br>MACHINE GUN, 5.56MM (SAW) (G12900) |                     |                  |     |     |     |     |     |     |     | Date: February 1998 |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|---------------------------------------|-----|-------|------|---------------|--|---------------------|------------------|-----|-----|-----|-----|-----|-----|-----|---------------------|-----|-----|-----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|------------|-----|-----|-----------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT  | BAL DUE AS OF 1 OCT | Fiscal Year 98   |     |     |     |     |     |     |     |                     |     |     |     | Fiscal Year 99   |     |     |     |     |     |     |     |     |            |     |     | L A T E R |
|                                       |     |       |      |               |  |                     | Calendar Year 98 |     |     |     |     |     |     |     |                     |     |     |     | Calendar Year 99 |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN                 | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL        | AUG | SEP |           |
| Hardware                              | 1   | 95&Pr | A    | 47.6          | 47.6   |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       | 2   | 95&Pr | A    | 9.1           | 9.1  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       | 1   | 95&Pr | MC   | 2.5           | 2.5  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       | 1   | 95&Pr | AF   | 2.5           | 2.5  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       | 1   | 95&Pr | SDAF | 0.5           | 0.5  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       | 1   | 95&Pr | FMS  | 0.2           | 0.2  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       | 1   | FY 96 | A    | 9.4           | 4.1  | 5.4                 | 0.5              | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                 | 0.5 | 0.4 |     |                  |     |     |     |     |     |     |     |     | 0.0        |     |     |           |
|                                       | 1   | FY 97 | A    | 3.8           |  | 3.8                 |                  |     |     |     |     |     |     |     |                     |     | 0.0 | 0.5 | 0.5              | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0        |     |     |           |
|                                       | 1   | FY98  | A    | 0.4           |  | 0.4                 |                  |     | A   |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     | 0.3 | 0.1 |     |            |     |     |           |
|                                       | 1   | FY99  | A    | 1.5           |  | 1.5                 |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     | A   |     |     |     | 0.3 | 0.5 | 0.5 | 0.3        |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
|                                       |     |       |      |               |  |                     |                  |     |     |     |     |     |     |     |                     |     |     |     |                  |     |     |     |     |     |     |     |     |            |     |     |           |
| <b>Total</b>                          |     |       |      | <b>77.5</b>   | <b>66.5</b>  | <b>11.1</b>         | 0.5              | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                 | 0.5 | 0.4 | 0.5 | 0.5              | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | <b>0.3</b> |     |     |           |

  

| MFR | NAME / LOCATION                              | PRODUCTION RATES |                 |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |  |
|-----|--|------------------|-----------------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---------|--|
|     |  | MIN.             | 1-8-5           | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |  |
| 1   | FN Mfg Co. Inc. Columbia S.C.                | 0.4              | 1.2             | 2.4  | 18          | 1          | INITIAL         | 7            | 10               | 6                  | 16      | FY 96 Funded Delivery Schedule and FY 97 MFR leadtime extended to maintain minimum production rates. |
|     |  |                  |                 |      |             |            | REORDER         | 7            | 2                | 22                 | 24      |  |
| 2   | Fabrique Nationale Nouveau, Herstal, Belgium |                  | ( one time buy) |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | REORDER         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | REORDER         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | REORDER         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |  |                  |                 |      |             |            | REORDER         |              |                  |                    |         |  |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |                |               |                       | P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900) |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  | Date: February 1998 |     |     |     |     |      |     |     |     |     |     |
|---------------------------------------|--|-------|----------------|---------------|-----------------------|---|------------------|--------------|--------------|------------------|--------------------|---------|--------------|-----|--|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| COST ELEMENTS                         | MFR  | FY    | SERV           | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT                                       | Fiscal Year 00   |              |              |                  |                    |         |              |     |  |     |     |     | Fiscal Year 01   |                     |     |     |     |     | LATE |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | Calendar Year 00 |              |              |                  |                    |         |              |     |  |     |     |     | Calendar Year 01 |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | OCT              | NOV          | DEC          | JAN              | FEB                | MAR     | APR          | MAY | JUN  | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR |      | APR | MAY | JUN | JUL | AUG |
| Hardware                              | 1  | 95&Pr | A              | 47.6          | 47.6                  |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 2  | 95&Pr | A              | 9.1           | 9.1                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | 95&Pr | MC             | 2.5           | 2.5                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | 95&Pr | AF             | 2.5           | 2.5                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | 95&Pr | SDAF           | 0.5           | 0.5                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | 95&Pr | FMS            | 0.2           | 0.2                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | FY 96 | A              | 9.4           | 9.4                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | FY 97 | A              | 3.8           | 3.8                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | FY98  | A              | 0.4           | 0.4                   |   |                  |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       | 1  | FY99  | A              | 1.5           | 1.2                   | 0.3   | 0.3              |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     | 0.0 |     |
| <b>Total</b>                          |  |       |                | <b>77.5</b>   | <b>77.2</b>           | <b>0.3</b>  | <b>0.3</b>       |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     | 0.0 |     |
|                                       |  |       |                |               |                       |   | OCT              | NOV          | DEC          | JAN              | FEB                | MAR     | APR          | MAY | JUN  | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR | APR  | MAY | JUN | JUL | AUG | SEP |
| MFR                                   | PRODUCTION RATES                             |       |                |               | REACHED D +           | MFR Number  | ADMIN LEAD TIME  |              |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
| R                                     | NAME / LOCATION                              | MIN.  | 1-8-5          | MAX.          |                       |   | Prior 1 Oct.     | After 1 Oct. | After 1 Oct. |                  |                    |         | After 1 Oct. |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
| 1                                     | FN Mfg Co. Inc. Columbia S.C.                | 0.4   | 1.2            | 2.4           | 18                    | 1   | INITIAL          |              |              |                  | 7                  | 10      | 6            | 16  | FY 96 Funded Delivery Schedule and FY 97 MFR leadtime extended to maintain minimum production rates. |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | REORDER          |              |              |                  | 7                  | 2       | 22           | 24  |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
| 2                                     | Fabrique Nationale Nouveau, Herstal, Belgium |       | (one time buy) |               |                       |   | INITIAL          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | REORDER          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | INITIAL          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | REORDER          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | INITIAL          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | REORDER          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | INITIAL          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |
|                                       |  |       |                |               |                       |   | REORDER          |              |              |                  |                    |         |              |     |  |     |     |     |                  |                     |     |     |     |     |      |     |     |     |     |     |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 1430.0      | 14.4    | 5.3     | 9.3     | 8.8     | 8.9     | 9.1     | 9.5     | 10.2    | 10.2    | 0.0         | 1515.6     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 1430.0      | 14.4    | 5.3     | 9.3     | 8.8     | 8.9     | 9.1     | 9.5     | 10.2    | 10.2    | 0.0         | 1515.6     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 1430.0      | 14.4    | 5.3     | 9.3     | 8.8     | 8.9     | 9.1     | 9.5     | 10.2    | 10.2    | 0.0         | 1515.6     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish, modernize, expand or replace facilities owned by the Army. It provides Production Support Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment, real property used in production and production testing of Weapons and Tracked Combat Vehicles. This program also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and Environmental (Env) restoration for the portions of plants which are no longer required for active production.

JUSTIFICATION: The FY99 request supports PSR to Government owned equipment at Lima Army Tank Plant. Included are a waste water discharge monitoring and separation system, repaving of roadways, roof/downspouts, and design/installation of a point source air ventilation system. Also, funding will be used to replace and rehabilitate unscheduled/unplanned emergency repairs of Government owned production machinery, equipment and facility items currently in use at the contractor plant in Muskegon, MI. and Scranton, Pa.

|       | FY 1996      | FY 1997 | FY 1998 | FY 1999 |
|-------|--------------|---------|---------|---------|
| PIF   | 3.443        | 8.926   | 8.401   | 8.511   |
| LIF   | 0.432        | 0.360   | 0.357   | 0.350   |
| ENV   | <u>1.448</u> |         |         |         |
| TOTAL | 5.323        | 9.286   | 8.758   | 8.861   |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>   |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>PRODUCTION BASE SUPPORT (TCV-WTCV)<br>(GA0050) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>   |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 49X3002 Omnibus Design<br>Provided for design of construction/equip<br>projects in support of Tank production.  |  |  | \$0.394      |      |   |              |      |                     |              |      |                        |              |      |          |
| 49X4281 LIF, Layaway/Redistribution<br>Various Government & Contractor Facilities<br>Provides for plant clearance and restoration<br>of those areas no longer required for active<br>production. Packing, crating, handling &<br>transportation GFE retained for future prod. |  |  | \$0.432      |      |   | \$0.360      |      |                     | \$0.357      |      |                        | \$0.350      |      |          |
| 49X6037 PSR, LIMA Army Tank Plant (LATP)<br>Provides non-routine maintenance of real<br>property facilities, I.P.E. purchase & rehab.<br>of production equipment  |  |  | \$2.299      |      |   | \$4.427      |      |                     | \$5.626      |      |                        | \$4.000      |      |          |
| 49X6040 PSR, Scranton/Muskegon Facilities<br>Provides replacement/rehab of Government<br>owned equipment at contractor plants.  |  |  | \$0.750      |      |   | \$4.499      |      |                     | \$2.775      |      |                        | \$3.711      |      |          |
| 49X6042 PSR, LIMA Army Tank Plant (LATP)<br>Provides elimination of buildings/restoring<br>sites to ensure comp w/Pollution Prevention<br>Executive Order 12856.  |  |  |              |      |   |              |      |                     |              |      |                        | \$0.304      |      |          |
| 49X6047 PSR, LIMA Army Tank Plant (LATP)<br>Provides compliance with Ohio Dept. of<br>Trans. resurfacing cycle-asphaltic/concrete   |  |  |              |      |   |              |      |                     |              |      |                        | \$0.218      |      |          |
| 49X6048 PSR, LIMA Army Tank Plant (LATP)<br>Provides for roof/downspout replacement   |  |  |              |      |   |              |      |                     |              |      |                        | \$0.278      |      |          |
| 19X8173 ENV, Stratford Army Engine Plant<br>Provided for correction of OSHA/EPA deficien-<br>cies/minimum facility project in support of<br>the aircraft and tank production.   |  |  | \$1.448      |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>  |  |  | \$5.323      |      |   | \$9.286      |      |                     | \$8.758      |      |                        | \$8.861      |      |          |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 9666        | 2100    | 1637    | 2150    | 400     | 697     | 1026    | 649     | 727     | 1255    |             | 20307      |
| Gross Cost       | 147.6       | 34.0    | 32.8    | 33.0    | 7.8     | 12.2    | 18.5    | 13.8    | 15.5    | 25.4    | 0.0         | 340.6      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 147.6       | 34.0    | 32.8    | 33.0    | 7.8     | 12.2    | 18.5    | 13.8    | 15.5    | 25.4    | 0.0         | 340.6      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 147.6       | 34.0    | 32.8    | 33.0    | 7.8     | 12.2    | 18.5    | 13.8    | 15.5    | 25.4    | 0.0         | 340.6      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The MK19, Mod 3 is a self-powered, air-cooled, blowback, 40mm automatic grenade launcher capable of a cyclic rate of 325-375 rounds per minute. It will engage point targets up to 1,500 meters and provide suppressive fire up to 2,200 meters. Component items for this system include the 40mm assembly group 1 and the MK64 mount.

**JUSTIFICATION:** The weapon will be mounted on the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV), the Armored Personnel Carrier family of vehicles and the M88A1 Recovery Vehicle. During static defensive operations, it will be ground employed utilizing the M3 Tripod Mount. It will replace select M2 cal .50 and M60 7.62mm machine guns in mechanized, light infantry, engineer, military police, and other combat support and combat service support units. Procurement will help reduce critical supply position for high-priority equipment readiness code (ERC) A shortages in Europe, Korea, and CONUS requirements. The MK175 Pedestal Mount is being incorporated on the MK64 Mount to improve the accuracy and dispersion of the MK19-3 when used on the HMMWV application.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>GRENADE LAUNCHER, AUTO, 40MM, MK19-<br>3 (G13400) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|---|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID  | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD  | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |   | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Hardware                                       |  | A   | 20237        | 1500 | 13   | 4433         | 320  | 14                  | 6091         | 400  | 15                     | 10609        | 697  | 15       |
|   |  |   | 2039         | 137  | 15   | 20876        | 1423 | 15                  |              |      |                        |              |      |          |
|   |  |   |              |      |  | 4065         | 268  | 15                  |              |      |                        |              |      |          |
|   |  |   |              |      |  | 2107         | 139  | 15                  |              |      |                        |              |      |          |
| 2. Round Removal Tool (GFM)                       |  |   | 187          |      |  | 209          |      |                     | 43           |      |                        | 85           |      |          |
| 3. Engineering Support<br>- In House              |  |   | 793          |      |  | 660          |      |                     | 1032         |      |                        | 989          |      |          |
| 4. Quality Assurance (ARDEC)                      |  |   | 45           |      |  | 30           |      |                     | 64           |      |                        | 65           |      |          |
| 5. Integrated Logistic Support                    |  |   | 314          |      |  | 15           |      |                     | 127          |      |                        | 125          |      |          |
| 6. Engineering Change Proposal                    |  |   | 103          |      |  | 332          |      |                     | 38           |      |                        | 125          |      |          |
| 7. Testing (TECOM)                                |  |   |              |      |  |              |      |                     | 266          |      |                        |              |      |          |
| 8. Fielding                                       |  |   | 406          |      |  | 245          |      |                     | 174          |      |                        | 183          |      |          |
| 9. M175 Material Change<br>(Application Costs)    |  |   |              |      |  |              |      |                     |              |      |                        | 10           |      |          |
| 10. MK19 Claim                                    |  |   | 8688         |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |   | <b>32812</b> |      |  | <b>32972</b> |      |                     | <b>7835</b>  |      |                        | <b>12191</b> |      |          |

| Exhibit P-5a, Budget Procurement History and Planning   |                           |                          |                 |            |   |          |                 |                  |                  | Date:          |
|---|---------------------------|--------------------------|-----------------|------------|---|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and<br>Other Combat Vehicles |                           |                          |                 |            |   |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |                           |                          |                 |            | P-1 Line Item Nomenclature:                   |          |                 |                  |                  |                |
|   |                           |                          |                 |            | GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400) |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location   | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery                        | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Hardware  |                           |                          |                 |            |   |          |                 |                  |                  |                |
| FY 96   | SACO Defense, Saco, Maine | SS/FFP M-2(1)            | ACALA           | Jul-96     | May-97  | 1500     | 13              | Yes              | No               |                |
|   | SACO Defense, Saco, Maine | Option                   | ACALA           | Apr-97     | Jul-98  | 137      | 15              | Yes              | No               |                |
| FY 97   | SACO Defense, Saco, Maine | SS/FFP M-2(2)            | ACALA           | Nov-96     | May-98  | 320      | 14              | Yes              | No               |                |
|   | SACO Defense, Saco, Maine | Option                   | ACALA           | Apr-97     | Sep-98  | 1423     | 15              | Yes              | No               |                |
|   | SACO Defense, Saco, Maine | SS/FFP M-3(1)            | ACALA           | Sep-97     | Oct-99  | 268      | 15              | Yes              | No               |                |
|   | SACO Defense, Saco, Maine | Option                   | ACALA           | Jun-98     | Jan-00  | 139      | 15              | Yes              | No               |                |
| FY 98   | SACO Defense, Saco, Maine | Option                   | ACALA           | Jun-98     | Feb-00  | 400      | 15              | Yes              | No               |                |
| FY 99   | SACO Defense, Saco, Maine | SS/FFP M-3(2)            | ACALA           | Dec-98     | Jun-00  | 697      | 15              | Yes              | No               |                |
| REMARKS:  |                           |                          |                 |            |   |          |                 |                  |                  |                |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                  |         |      |               |                       |                     | P-1 Item Nomenclature:                        |              |              |       |   |       |       |       |       |       |       |       |       |                  |       | Date:         |       |       |       |       |           |       |       |             |
|---------------------------------------|------------------|---------|------|---------------|-----------------------|---------------------|---|--------------|--------------|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|------------------|-------|---------------|-------|-------|-------|-------|-----------|-------|-------|-------------|
|                                       |                  |         |      |               |                       |                     | GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400) |              |              |       |   |       |       |       |       |       |       |       |       |                  |       | February 1998 |       |       |       |       |           |       |       |             |
| COST ELEMENTS                         | MFR              | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98                                |              |              |       |   |       |       |       |       |       |       |       |       | Fiscal Year 99   |       |               |       |       |       |       | L A T E R |       |       |             |
|                                       |                  |         |      |               |                       |                     | Calendar Year 98                              |              |              |       |   |       |       |       |       |       |       |       |       | Calendar Year 99 |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       |                     | O C T   | N O V        | D E C        | J A N | F E B   | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V            | D E C | J A N         | F E B | M A R | A P R | M A Y |           | J U N | J U L | A U G       |
| Hardware                              | 1                | 95 & Pr | A    | 11766         | 11766                 |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | 95 & Pr | AR   | 125           | 125                   |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | 95 & Pr | MC   | 3963          | 3963                  |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | 95 & Pr | N    | 785           | 785                   |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | 95 & Pr | AF   | 918           | 918                   |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | 95 & Pr | FMS  | 577           | 577                   |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | 95 & Pr | OTH  | 414           | 414                   |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | FY 96   | A    | 1500          | 583                   | 917                 | 140   | 140          | 140          |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | FY 96   | A    | 137           | 0                     | 137                 |   |              |              |       |   |       |       | 9     | 120   | 8     |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | FY 96   | AR   | 125           | 0                     | 125                 |   |              |              |       |   | 63    | 62    |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | FY 96   | FMS  | 9             | 0                     | 9                   |   |              |              |       |   | 9     |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | FY 97   | A    | 320           | 0                     | 320                 |   |              |              |       |   | 69    | 140   | 111   |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       | 1                | FY 97   | A    | 1423          | 0                     | 1423                |   |              |              |       |   |       |       |       |       | 112   | 120   | 120   | 120   | 100              | 100   | 100           | 100   | 100   | 100   | 100   | 100       | 100   | 100   | 51          |
|                                       | 1                | FY 97   | A    | 268           | 0                     | 268                 |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       | 268         |
|                                       | 1                | FY 97   | A    | 139           | 0                     | 139                 |   |              |              |       |   |       |       | A     |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       | 139         |
|                                       | 1                | FY 97   | FMS  | 4             | 0                     | 4                   |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       | 4           |
|                                       | 1                | FY 98   | A    | 400           | 0                     | 400                 |   |              |              |       |   |       |       | A     |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       | 400         |
|                                       | 1                | FY 99   | A    | 697           | 0                     | 697                 |   |              |              |       |   |       |       |       |       |       |       |       | A     |                  |       |               |       |       |       |       |           |       |       | 697         |
| <b>Total</b>                          |                  |         |      | <b>23570</b>  | <b>19131</b>          | <b>4439</b>         | 140   | 140          | 140          | 140   | 140   | 140   | 140   | 140   | 140   | 120   | 120   | 120   | 120   | 120              | 120   | 120           | 100   | 100   | 100   | 100   | 100       | 100   | 100   | <b>1559</b> |
|                                       |                  |         |      |               | 0                     |                     |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
| MFR                                   | PRODUCTION RATES |         |      |               | REACHED               | MFR                 | ADMIN LEAD TIME                               |              | MFR          | TOTAL | REMARKS   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
| NAME / LOCATION                       | MIN.             | 1-8-5   | MAX. | D +           | Number                | Prior 1 Oct.        | After 1 Oct.                                  | After 1 Oct. | After 1 Oct. |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
| 1 SACO Defense, Saco, Maine           | 100              | 200     | 300  | 9             | 1                     | INITIAL             | 10  | 9            | 11           | 20    | FY 97 Funded Delivery Schedule & MFR leadtime extended to maintain minimum production rate. |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | REORDER             | 10  | 1            | 19           | 20    |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | INITIAL             |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | REORDER             |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | INITIAL             |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | REORDER             |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | INITIAL             |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |
|                                       |                  |         |      |               |                       | REORDER             |   |              |              |       |   |       |       |       |       |       |       |       |       |                  |       |               |       |       |       |       |           |       |       |             |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: M1 ABRAMS TANK (MOD) (GA0700)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 447.6       | 35.0    | 50.1    | 62.9    | 29.2    | 53.3    | 30.4    | 62.5    | 97.1    | 119.9   | 1348.9      | 2336.9     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 447.6       | 35.0    | 50.1    | 62.9    | 29.2    | 53.3    | 30.4    | 62.5    | 97.1    | 119.9   | 1348.9      | 2336.9     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 447.6       | 35.0    | 50.1    | 62.9    | 29.2    | 53.3    | 30.4    | 62.5    | 97.1    | 119.9   | 1348.9      | 2336.9     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** This budget line provides for the procurement and installation of modification kits for the Abrams series tank to improve Lethality, Survivability, Safety and Operational Capabilities. Tank Lethality is being improved by the Armament Enhancement Initiative (AEI) and the Embedded Battle Command (EBC). Tank Survivability and Safety improvements include Live Fire Category A (Manual Blaster, Driver's / Loader's Hatch Ballistic Rims, Turret Cable Ballistic Protection and Driver's Hatch Latch); Live Fire Category B (Ammo Door Latch Mechanism, Smoke Generator Fuel Line, NBC Fire Warning System (NBCFW), new Hand - Held Fire Extinguishers (HHFE), Improved Gunner's Station (IGS); Battlefield Override (BF/OR), Driver's Viewer Quick Release (DVQR); System Enhancement Package (SEP); and Driver's Hatch Interlock (DHI). Tank Operational improvements include the Precision Lightweight GPS Receiver (PLGR); Pulse - Jet System (PJS); Vehicle Intercommunications System (VIS); External Auxiliary Power Unit (EAPU); M1A2 Field Upgrades, the M1A1-D program and the Mounted Water Ration Heater (MWRH). Finally, there is the Presidentially directed HALON Replacement program (Ozone Depleting Chemical Replacement). These P-Forms also reflect the alignment of most MODS into BLOCKS in order to realize reduced installation costs from concurrent application.

**JUSTIFICATION:** The priorities noted here in are consistent with USA Armor School requirements and are structured to meet needs validated by Tank users in training and testing as well as in actions such as Operation Desert Storm (ODS). Degradation of tank warfighting capability and survivability, increased incidents of vehicle damage and crew injuries will occur if these modifications are delayed or deleted.

| Exhibit P-40M Budget Item Justification Sheet  |                     |              |         |         |                                |         |         | Date   |         |       |       |  |
|--|---------------------|--------------|---------|---------|--------------------------------|---------|---------|--|---------|-------|-------|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                     |              |         |         |                                |         |         | P-1 Item Nomenclature<br>M1 ABRAMS TANK (MOD) (GA0700) |         |       |       |  |
| Program Elements for Code B Items  |                     |              | Code    |         | Other Related Program Elements |         |         |  |         |       |       |  |
| Description  |                     | Fiscal Years |         |         |                                |         |         |  |         |       |       |  |
| OSIP NO.   | Classification      | FY 1996      | FY 1997 | FY 1998 | FY 1999                        | FY 2000 | FY 2001 | FY 2002  | FY 2003 | TC    | Total |  |
| Halon Replacement (HAR) [MOD 1]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4411   | Environmental       | 7.4          | 1.5     | 2.0     | 5.3                            | 6.5     | 6.6     | 6.8  | 5.7     | 5.6   | 47.4  |  |
| Driver's Hatch Interlock (DHI) [Mod 2]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-97-05-4520   | Safety              | 0.0          | 20.4    | 6.5     | 5.8                            | 4.9     | 0.0     | 0.0  | 0.0     | 39.8  | 77.4  |  |
| Vehicle Intercommunications System (VIS) [MOD 3]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4412   | Legislative Compl.  | 27.0         | 6.6     | 6.0     | 5.3                            | 0.7     | 0.0     | 0.0  | 0.0     | 4.5   | 50.1  |  |
| Armament Enhancement Initiative (AEI) [MOD 4]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-89-05-4226   | Operational         | 60.1         | 0.4     | 0.0     | 0.0                            | 0.0     | 0.0     | 0.0  | 0.0     | 0.0   | 60.5  |  |
| Precision Lightweight GPS Receiver (PLGR) [MOD 5]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4417   | Manprint            | 0.4          | 0.0     | 0.5     | 0.6                            | 0.6     | 0.6     | 0.6  | 0.6     | 13.4  | 17.3  |  |
| Live Fire Category A (LFCA) [MOD 6]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-89-05-4230   | Deficiency Correct. | 14.5         | 5.3     | 3.5     | 3.5                            | 3.5     | 3.3     | 2.9  | 2.5     | 0.3   | 39.3  |  |
| Battlefield Override (BF/OR) [MOD 7]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-89-05-4229   | Operational         | 13.7         | 2.7     | 2.1     | 4.2                            | 1.1     | 0.8     | 0.6  | 0.3     | 0.0   | 25.5  |  |
| Live Fire Category B (LFCB) [MOD 8]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-94-05-4481   | Deficiency Correct. | 2.4          | 1.8     | 0.8     | 0.8                            | 0.8     | 0.7     | 0.7  | 0.6     | 0.0   | 8.6   |  |
| Driver's Viewer Quick Release (DVQR) [MOD 9]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4427   | Safety              | 0.3          | 0.2     | 0.3     | 0.3                            | 0.2     | 0.0     | 0.0  | 0.0     | 0.0   | 1.3   |  |
| Pulse - Jet System (PJS) [MOD 10]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4475   | Operational         | 29.0         | 6.7     | 3.5     | 2.4                            | 1.5     | 0.0     | 0.0  | 0.0     | 296.9 | 340.0 |  |
| Mounted Water Ration Heater (MWRH) [MOD 11]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4426   | Manprint            | 1.9          | 0.1     | 0.1     | 0.0                            | 0.0     | 0.0     | 0.0  | 0.0     | 0.0   | 2.1   |  |
| System Enhancement Package (SEP) [MOD 12]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-96-05-4505   | Operational         | 0.0          | 0.0     | 0.0     | 0.0                            | 2.9     | 46.5    | 82.8   | 107.4   | 655.5 | 895.1 |  |



| Exhibit P-40M Budget Item Justification Sheet                      |                       |       |      |                                |      |      |      | Date                          |       |         |         |
|--|-----------------------|-------|------|--------------------------------|------|------|------|-------------------------------|-------|---------|---------|
| Appropriation / Budget Activity/Serial No.                         |                       |       |      |                                |      |      |      | February-98                   |       |         |         |
| PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                       |       |      |                                |      |      |      | P-1 Item Nomenclature         |       |         |         |
|  |                       |       |      |                                |      |      |      | M1 ABRAMS TANK (MOD) (GA0700) |       |         |         |
| Program Elements for Code B Items                                  |                       |       | Code | Other Related Program Elements |      |      |      |                               |       |         |         |
| Embedded Battle Command (EBC) [MOD 13]                             |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-96-05-4516   | Operational           | 0.0   | 0.0  | 0.0                            | 0.0  | 1.0  | 1.0  | 1.1                           | 1.0   | 5.5     | 9.6     |
| External Auxiliary Pwr Unit (EAPU) [MOD 14]                        |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-85-05-4057   | Operational           | 0.0   | 8.0  | 2.0                            | 0.0  | 0.0  | 0.0  | 0.0                           | 0.0   | 40.8    | 50.8    |
| External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15]               |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4521   | Operational           | 0.0   | 2.4  | 0.0                            | 0.0  | 0.0  | 0.0  | 0.0                           | 0.0   | 0.0     | 2.4     |
| NBC Fire Warning (NBCFW) [MOD 16]                                  |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4524   | Safety                | 0.0   | 0.0  | 0.0                            | 4.1  | 3.3  | 0.4  | 0.0                           | 0.0   | 5.3     | 13.1    |
| Hand-Held Fire Extinguisher (HHFE) [MOD 17]                        |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4525   | Safety                | 0.0   | 0.0  | 0.0                            | 0.0  | 1.8  | 0.0  | 0.0                           | 0.0   | 0.0     | 1.8     |
| M1A2 Field Mods (A2FM) [MOD 18]                                    |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4534   | Deficiency Correction | 0.0   | 1.4  | 0.9                            | 0.2  | 1.0  | 2.0  | 1.0                           | 1.2   | 6.0     | 13.7    |
| Matrix Support (MXSP) [MOD 19]                                     |                       |       |      |                                |      |      |      |                               |       |         |         |
| OSIP NO 20   | Operational           | 0.0   | 0.5  | 0.5                            | 0.5  | 0.6  | 0.6  | 0.6                           | 0.6   | 3.4     | 7.3     |
| Prior Year Mod Installation (PYMI) [MOD 20]                        |                       |       |      |                                |      |      |      |                               |       |         |         |
| OSIP NO 21   | Operational           | 65.0  | 4.9  | 0.5                            | 0.0  | 0.0  | 0.0  | 0.0                           | 0.0   | 0.0     | 70.4    |
| M1A1-D Integration Kit [MOD 21]                                    |                       |       |      |                                |      |      |      |                               |       |         |         |
| OSIP NO. 22  | Operational           | 0.0   | 0.0  | 0.0                            | 20.3 | 0.0  | 0.0  | 0.0                           | 0.0   | 271.4   | 291.7   |
| Totals   |                       | 221.7 | 62.9 | 29.2                           | 53.3 | 30.4 | 62.5 | 97.1                          | 119.9 | 1,348.4 | 2,025.4 |

| INDIVIDUAL MODIFICATION   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | Date           |          |     |        | February 1998       |      |  |  |      |  |  |  |
|---|--|----------------------|-----|-----|-----|----------------|-----|-----|-----|-----------------------------------|-----|-----|-----|-------------------------------|-----|-----|----------------|----------|-----|--------|---------------------|------|--|--|------|--|--|--|
| MODIFICATION TITLE: Halon Replacement (HAR) [MOD 1] 1-92-05-4411  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 355 , IPM1 = 818 , M1A1 = 4327 , M1A2 = 650 TOTAL RQMT = 6150  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>This Modification changes the engine compartment fire suppression system in all models of the Abrams tank. This retrofit involves the substitution of a dry powder fire retardant (FM-200) for the Halon 1301 gas currently used. This requirement was mandated by the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals [ODC's] including the Halon 1301 used in the Abrams Tank Engine Compartment [Halon 1301 remains authorized for the Abrams Crew Compartment due to survivability concerns]. See 1992 DOD directive 6050.9 which establishes the policy on ODC's for Armed Forces and DA letter 200 / 9 which implements that policy within the U.S. Army. The Halon 1301 replacement modification represents the implementation of a Presidential directive.</p> |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | <u>PLANNED</u> |          |     |        | <u>ACCOMPLISHED</u> |      |  |  |      |  |  |  |
| Preliminary Design Review   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 1Q93                |      |  |  | 1Q93 |  |  |  |
| Critical Design Review  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 1Q94                |      |  |  | 3Q94 |  |  |  |
| Contractor Test & Eval.   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 2Q96                |      |  |  | 2Q96 |  |  |  |
| Development Test & Eval.  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 3Q96                |      |  |  | 4Q96 |  |  |  |
| Initial Operational Test & Eval.  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 2Q97                |      |  |  | 3Q97 |  |  |  |
| IPR Production Decision   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 4Q97                |      |  |  | 4Q97 |  |  |  |
| Tech. Data Package Available  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 3Q98                |      |  |  |      |  |  |  |
| Installation Schedule:  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |
| Pr Yr   |  | FY 1997              |     |     |     | FY 1998        |     |     |     | FY 1999                           |     |     |     | FY 2000                       |     |     |                | FY 2001  |     |        |                     |      |  |  |      |  |  |  |
| Totals  |  | 1                    | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1                                 | 2   | 3   | 4   | 1                             | 2   | 3   | 4              | 1        | 2   | 3      | 4                   |      |  |  |      |  |  |  |
| <b>Inputs</b>   |  |                      |     |     |     |                |     |     | 270 | 300                               | 300 | 300 | 300 | 300                           | 300 | 300 | 300            | 300      | 300 | 300    | 300                 |      |  |  |      |  |  |  |
| <b>Outputs</b>  |  |                      |     |     |     |                |     |     |     |                                   | 30  | 270 | 270 | 270                           | 270 | 270 | 270            | 270      | 270 | 270    | 270                 |      |  |  |      |  |  |  |
|   |  | FY 2002              |     |     |     | FY 2003        |     |     |     | FY 2004                           |     |     |     | FY 2005                       |     |     |                | To       |     | Totals |                     |      |  |  |      |  |  |  |
|   |  | 1                    | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1                                 | 2   | 3   | 4   | 1                             | 2   | 3   | 4              | Complete |     |        |                     |      |  |  |      |  |  |  |
| <b>Inputs</b>   |  | 300                  | 300 | 300 | 300 | 300            | 300 | 300 | 150 | 30                                |     |     |     |                               |     |     |                |          |     |        |                     | 6150 |  |  |      |  |  |  |
| <b>Outputs</b>  |  | 270                  | 270 | 270 | 270 | 270            | 270 | 270 | 270 | 270                               | 270 | 270 | 180 |                               |     |     |                |          |     |        |                     | 6150 |  |  |      |  |  |  |
| METHOD OF IMPLEMENTATION:   |  | Contr. / Depot Teams |     |     |     |                |     |     |     | ADMINISTRATIVE LEADTIME: 3 Months |     |     |     | PRODUCTION LEADTIME: 4 Months |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |
| Contract Dates:   |  | FY 1997 N / A        |     |     |     | FY 1998 APR 98 |     |     |     | FY 1999 APR 99                    |     |     |     |                               |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |
| Delivery Date:  |  | FY 1997 N / A        |     |     |     | FY 1998 AUG 98 |     |     |     | FY 1999 AUG 99                    |     |     |     |                               |     |     |                |          |     |        |                     |      |  |  |      |  |  |  |

| INDIVIDUAL MODIFICATION          |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         | Date   |      | February 1998 |       |      |
|----------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|--|------|---------------|-------|------|
| MODIFICATION TITLE (Cont):       |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         | Halon Replacement (HAR) [MOD 1] 1-92-05-4411 |      |               |       |      |
| FINANCIAL PLAN: (\$ in Millions) |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
|                                  | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |  | TC   |               | TOTAL |      |
|                                  | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$   | Qty  | \$            | Qty   | \$   |
| RDT&E                            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| PROCUREMENT                      |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Kit Quantity                     | 0                 |     | 0       |     | 570     |     | 1080    |     | 1080    |     | 1080    |     | 1080    |     | 750     |  | 510  |               | 6150  |      |
| Installation Kits                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Installation Kits, Nonrecurring  |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Equipment                        |                   |     |         |     |         | 2.0 |         | 3.9 |         | 3.9 |         | 4.0 |         | 4.1 |         | 2.9  |      | 2.1           |       | 22.9 |
| Equipment, Nonrecurring          |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Engineering Change Orders        |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Engineering & Source Select.     |                   | 7.4 |         | 1.5 |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       | 8.9  |
| Training Equipment               |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Support Equipment                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Other                            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Interim Contractor Support       |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| Installation of Hardware         |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| FY 1996 & Prior Eqpt -- Kits     |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| FY 1997 Eqpt -- Kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  |      |               |       |      |
| FY 1998 Eqpt -- Kits             |                   |     |         |     |         |     | 570     | 1.4 |         |     |         |     |         |     |         |  |      |               | 570   | 1.4  |
| FY 1999 Eqpt -- Kits             |                   |     |         |     |         |     |         |     | 1080    | 2.6 |         |     |         |     |         |  |      |               | 1080  | 2.6  |
| FY 2000 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     | 1080    | 2.6 |         |     |         |  |      |               | 1080  | 2.6  |
| FY 2001 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     | 1080    | 2.7 |         |  |      |               | 1080  | 2.7  |
| FY 2002 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     | 1080    | 2.8  |      |               | 1080  | 2.8  |
| FY 2003 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  | 750  | 2.1           | 750   | 2.1  |
| TC Equip -- 510 Kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |  | 510  | 1.4           | 510   | 1.4  |
| Total Installment                |                   |     |         |     |         |     | 570     | 1.4 | 1080    | 2.6 | 1080    | 2.6 | 1080    | 2.7 | 1080    | 2.8  | 1260 | 3.5           | 6150  | 15.6 |
| Total Procurement Cos            |                   | 7.4 |         | 1.5 |         | 2.0 |         | 5.3 |         | 6.5 |         | 6.6 |         | 6.8 |         | 5.7  |      | 5.6           |       | 47.4 |

| INDIVIDUAL MODIFICATION   |  |                    |   |     |     |                          |     |     |     | Date           |     | February 1998 |     |                      |                     |     |     |          |        |   |   |
|---|--|--------------------|---|-----|-----|--------------------------|-----|-----|-----|----------------|-----|---------------|-----|----------------------|---------------------|-----|-----|----------|--------|---|---|
| MODIFICATION TITLE: Driver's Hatch Interlock (DHI) [Mod 2] 1-97-05-4520   |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 818 , M1A1 = 4327 , M1A2 = 435 TOTAL RQMT = 5580  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| DESCRIPTION / JUSTIFICATION:  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| <p>The Driver's Hatch Interlock (DHI) is a SAFETY modification which provides an electronic interface between the Driver's Hatch and the Turret Drive (Rotation) controls. Its purpose is to preclude turret rotation while the driver's hatch is open. In the past there have been several accidents in the field where the driver has been injured or killed by inadvertently extending his head outside the hatch while the turret was being rotated. The DHI will assure that similar accidents will not occur in the future. Without this funding, the potential exists for additional driver accidents and / or fatalities.</p> <p>April 97 contract award shown below is M1A2 only.<br/>           January 98 contract award shown below is M1A1 only.</p> |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                    |   |     |     |                          |     |     |     | <u>PLANNED</u> |     |               |     |                      | <u>ACCOMPLISHED</u> |     |     |          |        |   |   |
| Preliminary Design Review   |  |                    |   |     |     |                          |     |     |     | - - - - 2Q96   |     |               |     |                      | 1Q93                |     |     |          |        |   |   |
| Critical Design Review  |  |                    |   |     |     |                          |     |     |     | - - - - 3Q96   |     |               |     |                      | 3Q94                |     |     |          |        |   |   |
| Development Test & Eval.  |  |                    |   |     |     |                          |     |     |     | - - - - 4Q96   |     |               |     |                      | 4Q96                |     |     |          |        |   |   |
| IPR Production Decision   |  |                    |   |     |     |                          |     |     |     | - - - - 4Q97   |     |               |     |                      | 4Q97                |     |     |          |        |   |   |
| ECP Completed   |  |                    |   |     |     |                          |     |     |     | - - - - 1Q98   |     |               |     |                      | 1Q98                |     |     |          |        |   |   |
| Tech. Data Package Available  |  |                    |   |     |     |                          |     |     |     | - - - - 1Q98   |     |               |     |                      |                     |     |     |          |        |   |   |
| Installation Schedule:  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| Pr Yr   |  | FY 1997            |   |     |     | FY 1998                  |     |     |     | FY 1999        |     |               |     | FY 2000              |                     |     |     | FY 2001  |        |   |   |
| Totals  |  | 1                  | 2 | 3   | 4   | 1                        | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1                    | 2                   | 3   | 4   | 1        | 2      | 3 | 4 |
| <b>Inputs</b>   |  |                    |   | 375 | 400 | 400                      | 400 | 400 | 150 | 145            | 140 | 135           | 135 | 135                  | 135                 | 131 |     |          |        |   |   |
| <b>Outputs</b>  |  |                    |   | 180 | 242 | 266                      | 267 | 267 | 267 | 106            | 107 | 107           | 107 | 292                  | 291                 | 291 | 291 |          |        |   |   |
|   |  | FY 2002            |   |     |     | FY 2003                  |     |     |     | FY 2004        |     |               |     | FY 2005              |                     |     |     | To       | Totals |   |   |
|   |  | 1                  | 2 | 3   | 4   | 1                        | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1                    | 2                   | 3   | 4   | Complete |        |   |   |
| <b>Inputs</b>   |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     | 2499     | 5580   |   |   |
| <b>Outputs</b>  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     | 2499     | 5580   |   |   |
| METHOD OF IMPLEMENTATION:   |  | Contractor Install |   |     |     | ADMINISTRATIVE LEADTIME: |     |     |     | 2 Months       |     |               |     | PRODUCTION LEADTIME: |                     |     |     | 4 Months |        |   |   |
| Contract Dates:   |  | FY 1997 APR 97     |   |     |     | FY 1998 JAN 98           |     |     |     | FY 1999 FEB 99 |     |               |     |                      |                     |     |     |          |        |   |   |
| Delivery Date:  |  | FY 1997 AUG 97     |   |     |     | FY 1998 MAY 98           |     |     |     | FY 1999 JUN 99 |     |               |     |                      |                     |     |     |          |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Driver's Hatch Interlock (DHI) [Mod 2] 1-97-05-4520

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |      | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |      | TOTAL |    |      |
|---------------------------------|-------------------|----|---------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|------|------|-------|----|------|
|                                 | Qty               | \$ | Qty     | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$   | Qty   | \$ |      |
| RDT&E                           |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| PROCUREMENT                     |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Kit Quantity                    |                   |    | 2433    |      | 228     |     | 420     |     |         |     |         |    |         |    |         |    | 2499 |      | 5580  |    |      |
| Installation Kits               |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Installation Kits, Nonrecurring |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Equipment                       |                   |    |         | 18.5 |         | 2.1 |         | 4.0 |         |     |         |    |         |    |         |    |      | 27.3 |       |    | 51.9 |
| Equipment, Nonrecurring         |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Engineering Change Orders       |                   |    |         | 1.1  |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    | 1.1  |
| Data                            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Training Equipment              |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Support Equipment               |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Other (Tst & Source select)     |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Interim Contractor Support      |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| Installation of Hardware        |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| FY 1997 Eqpt -- Kits            |                   |    | 422     | 0.8  | 1067    | 4.4 | 427     | 1.8 | 517     | 2.2 |         |    |         |    |         |    |      |      | 2433  |    | 9.2  |
| FY 1998 Eqpt -- Kits            |                   |    |         |      |         |     |         |     | 228     | 0.9 |         |    |         |    |         |    |      |      | 228   |    | 0.9  |
| FY 1999 Eqpt -- Kits            |                   |    |         |      |         |     |         |     | 420     | 1.8 |         |    |         |    |         |    |      |      | 420   |    | 1.8  |
| FY 2000 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| FY 2001 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| FY 2002 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| FY 2003 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |    |      |
| TC Equip 2499 --Kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    | 2499 | 12.5 | 2499  |    | 12.5 |
| 4                               |                   |    | 422     | 0.8  | 1067    | 4.4 | 427     | 1.8 | 1165    | 4.9 |         |    |         |    |         |    | 2499 | 12.5 | 5580  |    | 24.4 |
| Total Procurement Cos           |                   |    |         | 20.4 |         | 6.5 |         | 5.8 |         | 4.9 |         |    |         |    |         |    |      | 39.8 |       |    | 77.4 |

| INDIVIDUAL MODIFICATION  |  |         |     |     |     |         |     |     |     | Date           |     | February 1998 |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
|--|--|---------|-----|-----|-----|---------|-----|-----|-----|----------------|-----|---------------|-----|---------|---------------------|-----|-----|----------|---|--------|---|--|--|--|--|--|
| MODIFICATION TITLE: Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 4327 , M1A2 = 181 TOTAL RQMT = 4508   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The Vehicle Intercommunications System (VIS) is an intercom for inter-crew communications and a connection to a radio for to tank direct communications. VIS replaces the AN / VIC - 1 which is technologically obsolete, difficult to maintain and susceptible to electronic countermeasures. VIS is a state-of-the-art replacement which has none of these drawbacks. This is a Congressionally mandated program. All milestones are for USA CECOM, the "A" proponent for the VIS program. Current fun will provide for the retrofit of all M1A2's produced prior to VIS availability (Balance of M1A2's will be fitted in production via M1A2 Upgrade program) and all M1A1's.</p> |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |         |     |     |     |         |     |     |     | <u>PLANNED</u> |     |               |     |         | <u>ACCOMPLISHED</u> |     |     |          |   |        |   |  |  |  |  |  |
| Development Test & Eval.   |  |         |     |     |     |         |     |     |     | - - - - - 4Q92 |     |               |     |         | 2Q92                |     |     |          |   |        |   |  |  |  |  |  |
| Initial Operational Test & Eval.   |  |         |     |     |     |         |     |     |     | - - - - - 3Q94 |     |               |     |         | 3Q94                |     |     |          |   |        |   |  |  |  |  |  |
| IPR Production Decision  |  |         |     |     |     |         |     |     |     | - - - - - 4Q94 |     |               |     |         | 4Q94                |     |     |          |   |        |   |  |  |  |  |  |
| Installation Schedule:   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
| Pr Yr  |  | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999        |     |               |     | FY 2000 |                     |     |     | FY 2001  |   |        |   |  |  |  |  |  |
| Totals   |  | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1       | 2                   | 3   | 4   | 1        | 2 | 3      | 4 |  |  |  |  |  |
| <b>Inputs</b>  |  | 2568    | 164 | 164 | 164 | 163     | 128 | 128 | 128 | 128            | 113 | 113           | 113 | 112     |                     |     |     |          |   |        |   |  |  |  |  |  |
| <b>Outputs</b>   |  | 1932    | 159 | 159 | 159 | 159     | 163 | 164 | 164 | 164            | 128 | 128           | 128 | 128     | 128                 | 128 | 128 | 67       |   |        |   |  |  |  |  |  |
|  |  | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004        |     |               |     | FY 2005 |                     |     |     | To       |   | Totals |   |  |  |  |  |  |
|  |  | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1       | 2                   | 3   | 4   | Complete |   |        |   |  |  |  |  |  |
| <b>Inputs</b>  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     | 322      |   | 4508   |   |  |  |  |  |  |
| <b>Outputs</b>   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     | 322      |   | 4508   |   |  |  |  |  |  |
| IMPLEMENTATION: Depot / Contr. Field Teams ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 4 Months   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
| Contract Dates: FY 1997 APR 97 FY 1998 JUN 98 FY 1999 JUN 99   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |
| Delivery Date: FY 1997 SEP 97 FY 1998 OCT 98 FY 1999 OCT 99  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |  |  |  |  |

| INDIVIDUAL MODIFICATION          |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Date  |     | February 1998 |      |      |
|----------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---|-----|---------------|------|------|
| MODIFICATION TITLE (Cont):       |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412 |     |               |      |      |
| FINANCIAL PLAN: (\$ in Millions) |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
|                                  | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |     | TOTAL         |      |      |
|                                  | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty   | \$  | Qty           | \$   |      |
| RDT&E                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| PROCUREMENT                      |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| Kit Quantity                     | 2568              |      | 655     |     | 512     |     | 451     |     |         |     |         |    |         |    |         |    | 322   |     |               | 4508 |      |
| Installation Kits                |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| Installation Kits, Nonrecurring  |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| Equipment                        |                   | 22.9 |         | 5.7 |         | 5.1 |         | 4.6 |         |     |         |    |         |    |         |    |   | 3.9 |               |      | 42.2 |
| Equipment, Nonrecurring          |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| Engineering Change Orders        |                   | 0.2  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      | 0.2  |
| Testing                          |                   | 0.2  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      | 0.2  |
| Training Equipment               |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| Support Equipment                |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| Other                            |                   | 1.7  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      | 1.7  |
| Interim Contractor Support       |                   | 0.5  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      | 0.5  |
| Installation of Hardware         |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| FY 1996 & Prior Eqpt -- Kits     | 1932              | 1.5  | 636     | 0.9 |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               | 2568 | 2.4  |
| FY 1997 Eqpt -- Kits             |                   |      |         |     | 655     | 0.9 |         |     |         |     |         |    |         |    |         |    |   |     |               | 655  | 0.9  |
| FY 1998 Eqpt -- Kits             |                   |      |         |     |         |     | 512     | 0.7 |         |     |         |    |         |    |         |    |   |     |               | 512  | 0.7  |
| FY 1999 Eqpt -- Kits             |                   |      |         |     |         |     |         |     | 451     | 0.7 |         |    |         |    |         |    |   |     |               | 451  | 0.7  |
| FY 2000 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| FY 2001 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| FY 2002 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| FY 2003 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |      |
| TC Equip -- 322 Kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | 322   | 0.6 |               | 322  | 0.6  |
| Total Installment                | 1932              | 1.5  | 636     | 0.9 | 655     | 0.9 | 512     | 0.7 | 451     | 0.7 |         |    |         |    |         |    | 322   | 0.6 |               | 4508 | 5.3  |
| Total Procurement Cos            |                   | 27.0 |         | 6.6 |         | 6.0 |         | 5.3 |         | 0.7 |         |    |         |    |         |    |   | 4.5 |               |      | 50.1 |

| INDIVIDUAL MODIFICATION   |  |               |    |    |    |               |   |   |   | Date                                  |   | February 1998 |   |         |                                   |   |   |          |   |        |   |
|---|--|---------------|----|----|----|---------------|---|---|---|---------------------------------------|---|---------------|---|---------|-----------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Armament Enhancement Initiative (AEI) [MOD 4] 1-89-05-4226  |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327   |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br><p>The Armament Enhancement Initiative (AEI) is a high priority program to improve the lethality of the Abrams M1A1 tank fleet by improving the 120mm main armament ammunition and by modifying the fire control system via new ballistic solutions and reticle changes to allow the tank to accept the new rounds (All M1A2's are receiving this mod in production). The ammunition upgrades will significantly improve kill ratios in actions such as Operation Desert Storm. This program also includes the upg of the first 1629ea M1A1 gun mounts to the higher pressure (and higher muzzle velocity) AEI configuration (the balance of delivered gun mounts were supplied in this configuration for production). The Gun Mount upgrade is an RIA (Rock Island Arsenal) effort; Reticle revisions are contracted and field retrofits to the tanks are completed by a Depot Team.</p> |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |    |    |    |               |   |   |   | <u>PLANNED</u>                        |   |               |   |         | <u>ACCOMPLISHED</u>               |   |   |          |   |        |   |
| Preliminary Design Review   |  |               |    |    |    |               |   |   |   | - - - - - 2Q91                        |   |               |   |         | 3Q91                              |   |   |          |   |        |   |
| Critical Design Review  |  |               |    |    |    |               |   |   |   | - - - - - 3Q91                        |   |               |   |         | 4Q91                              |   |   |          |   |        |   |
| Contractor Test & Eval.   |  |               |    |    |    |               |   |   |   | - - - - - 3Q91                        |   |               |   |         | 4Q91                              |   |   |          |   |        |   |
| Initial Operational Test & Eval.  |  |               |    |    |    |               |   |   |   | - - - - - 4Q91                        |   |               |   |         | 1Q92                              |   |   |          |   |        |   |
| TDP Available   |  |               |    |    |    |               |   |   |   | - - - - - 2Q92                        |   |               |   |         | 1Q92                              |   |   |          |   |        |   |
| Installation Schedule:  |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997       |    |    |    | FY 1998       |   |   |   | FY 1999                               |   |               |   | FY 2000 |                                   |   |   | FY 2001  |   |        |   |
| Totals  |  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1                                     | 2 | 3             | 4 | 1       | 2                                 | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  | 4327          |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| <b>Outputs</b>  |  | 38            | 38 | 37 | 37 |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
|   |  | FY 2002       |    |    |    | FY 2003       |   |   |   | FY 2004                               |   |               |   | FY 2005 |                                   |   |   | To       |   | Totals |   |
|   |  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1                                     | 2 | 3             | 4 | 1       | 2                                 | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   | 4327   |   |
| <b>Outputs</b>  |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   | 4327   |   |
| METHOD OF IMPLEMENTATION: See Description   |  |               |    |    |    |               |   |   |   | ADMINISTRATIVE LEADTIME: N / A Months |   |               |   |         | PRODUCTION LEADTIME: N / A Months |   |   |          |   |        |   |
| Contract Dates:   |  | FY 1997 N / A |    |    |    | FY 1998 N / A |   |   |   | FY 1999 N / A                         |   |               |   |         |                                   |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 N / A |    |    |    | FY 1998 N / A |   |   |   | FY 1999 N / A                         |   |               |   |         |                                   |   |   |          |   |        |   |



INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Armament Enhancement Initiative (AEI) [MOD 4] 1-89-05-4226

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |      |
|---------------------------------|-------------------|------|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|------|
|                                 | Qty               | \$   | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |      |
| RDT&E                           |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| PROCUREMENT                     |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Kit Quantity                    | 4327              |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 4327 |      |
| Installation Kits               |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation Kits, Nonrecurring |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Equipment                       |                   | 26.4 |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 26.4 |
| Equipment, Nonrecurring         |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Engineering Change Orders       |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Data (In - House Support)       |                   | 3.2  |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 3.2  |
| Training Equipment              |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Support Equipment               |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Other (Gun Mount Rebuild)       |                   | 15.2 |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 15.2 |
| Interim Contractor Support      |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation of Hardware        |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    | 4177              | 15.3 | 150     | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 4327 | 15.7 |
| FY 1997 Eqpt -- Kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2000 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2001 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2002 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2003 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| TC Equip-Kits                   |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Total Installment               | 4177              | 15.3 | 150     | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 4327 | 15.7 |
| Total Procurement Cos           |                   | 60.1 |         | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 60.5 |

| INDIVIDUAL MODIFICATION  |  |         |    |    |         |         |    |    |    | Date                              |    | February 1998 |    |         |                               |    |    |          |        |   |    |  |  |  |
|--|--|---------|----|----|---------|---------|----|----|----|-----------------------------------|----|---------------|----|---------|-------------------------------|----|----|----------|--------|---|----|--|--|--|
| MODIFICATION TITLE: Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417   |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327ea  |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The Precision Lightweight GPS Receiver (PLGR) is a self-contained locator unit which can collect and process GPS satellite signals and derive Position (To within + or - 10 meters), Velocity and Time (PVT). The funding shown is for the PLGR Installation Kit only. PLGR units were procured and provided to PM Abrams by PM GPS. |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |         |    |    |         |         |    |    |    | <u>PLANNED</u>                    |    |               |    |         | <u>ACCOMPLISHED</u>           |    |    |          |        |   |    |  |  |  |
| Preliminary Design Review  |  |         |    |    |         |         |    |    |    | - - - - - 2Q91                    |    |               |    |         | 2Q91                          |    |    |          |        |   |    |  |  |  |
| Critical Design Review   |  |         |    |    |         |         |    |    |    | - - - - - 4Q91                    |    |               |    |         | 4Q91                          |    |    |          |        |   |    |  |  |  |
| Contractor Test & Eval.  |  |         |    |    |         |         |    |    |    | - - - - - 3Q93                    |    |               |    |         | 4Q93                          |    |    |          |        | ** Delayed by<br>continuing<br>EMI problems |    |  |  |  |
| Development Test & Eval.   |  |         |    |    |         |         |    |    |    | - - - - - 1Q94                    |    |               |    |         | 3Q94                          |    |    |          |        |   |    |  |  |  |
| Initial Operational Test & Eval.   |  |         |    |    |         |         |    |    |    | - - - - - 4Q94                    |    |               |    |         | 1Q95                          |    |    |          |        |   |    |  |  |  |
| IPR Production Decision  |  |         |    |    |         |         |    |    |    | - - - - - 4Q94                    |    |               |    |         | 2Q95                          |    |    |          |        |   |    |  |  |  |
| TDP Available  |  |         |    |    |         |         |    |    |    | - - - - - 2Q97                    |    |               |    |         | **                            |    |    |          |        |   |    |  |  |  |
| Installation Schedule:   |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| Pr Yr  |  | FY 1997 |    |    |         | FY 1998 |    |    |    | FY 1999                           |    |               |    | FY 2000 |                               |    |    | FY 2001  |        |   |    |  |  |  |
|  |  | 1       | 2  | 3  | 4       | 1       | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4  | 1        | 2      | 3   | 4  |  |  |  |
| <b>Inputs</b>  |  | 38      |    |    |         |         |    |    |    |                                   | 50 | 50            | 50 | 50      | 50                            | 50 | 50 | 50       | 50     | 50  | 50 |  |  |  |
| <b>Outputs</b>   |  | 38      |    |    |         |         |    |    |    |                                   | 50 | 50            | 50 | 50      | 50                            | 50 | 50 | 50       | 50     | 50  | 50 |  |  |  |
|  |  | FY 2002 |    |    |         | FY 2003 |    |    |    | FY 2004                           |    |               |    | FY 2005 |                               |    |    | To       | Totals |   |    |  |  |  |
|  |  | 1       | 2  | 3  | 4       | 1       | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4  | Complete |        |   |    |  |  |  |
| <b>Inputs</b>  |  | 50      | 50 | 50 | 50      | 50      | 50 | 50 | 50 | 50                                |    |               |    |         |                               |    |    | 3289     | 4327   |   |    |  |  |  |
| <b>Outputs</b>   |  | 50      | 50 | 50 | 50      | 50      | 50 | 50 | 50 | 50                                |    |               |    |         |                               |    |    | 3289     | 4327   |   |    |  |  |  |
| METHOD OF IMPLEMENTATION: Depot Field Team   |  |         |    |    |         |         |    |    |    | ADMINISTRATIVE LEADTIME: 2 Months |    |               |    |         | PRODUCTION LEADTIME: 5 Months |    |    |          |        |   |    |  |  |  |
| Contract Dates: FY 1997  |  |         |    |    | FY 1998 |         |    |    |    | AUG 98                            |    |               |    |         | FY 1999                       |    |    |          |        | JUL 99                                      |    |  |  |  |
| Delivery Date: FY 1997   |  |         |    |    | FY 1998 |         |    |    |    | JAN 99                            |    |               |    |         | FY 1999                       |    |    |          |        | DEC 99                                      |    |  |  |  |

| INDIVIDUAL MODIFICATION                   |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | Date   |      | February 1998 |     |          |
|---|-------------------|-----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|--|------|---------------|-----|----------|
| MODIFICATION TITLE (Cont):                |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417 |      |               |     |          |
| FINANCIAL PLAN: (\$ in Millions)          |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
|   | FY 1996 and Prior |     | FY 1997 |    | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC   |      | TOTAL         |     |          |
|   | Qty               | \$  | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty  | \$   | Qty           | \$  |          |
| RDT&E                                     |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| PROCUREMENT                               |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Kit Quantity                              | 38                |     |         |    | 200     |     | 200     |     | 200     |     | 200     |     | 200     |     | 200     |     | 3089   |      | 4327          |     |          |
| Installation Kits                         |                   | 0.1 |         |    |         | 0.5 |         |     | 0.5     |     |         | 0.5 |         |     | 0.5     |     |  | 10.0 |               |     | 13.1     |
| Installation Kits, Nonrecurring Equipment |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Equipment, Nonrecurring                   |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Engineering Change Orders                 |                   | 0.1 |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     | 0.1      |
| Data                                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Training Equipment                        |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Support Equipment                         |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Other (Benet Labs)                        |                   | 0.1 |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     | 0.1      |
| Interim Contractor Support                |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| Installation of Hardware                  |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| FY 1996 & Prior Eqpt -- Kits              | 38                | 0.1 |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               | 38  | 0.1      |
| FY 1997 Eqpt -- Kits                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |          |
| FY 1998 Eqpt -- Kits                      |                   |     |         |    |         |     | 200     | 0.1 |         |     |         |     |         |     |         |     |  |      |               | 200 | 0.1      |
| FY 1999 Eqpt -- Kits                      |                   |     |         |    |         |     |         |     | 200     | 0.1 |         |     |         |     |         |     |  |      |               | 200 | 0.1      |
| FY 2000 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     | 200     | 0.1 |         |     |         |     |  |      |               | 200 | 0.1      |
| FY 2001 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     |         |     | 200     | 0.1 |         |     |  |      |               | 200 | 0.1      |
| FY 2002 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     | 200     | 0.1 |  |      |               | 200 | 0.1      |
| FY 2003 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | 200  | 0.1  |               | 200 | 0.1      |
| TC Equip -- 3089 Kits                     |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | 200  | 0.1  | 3089          | 3.3 | 3089 3.3 |
| Total Installment                         | 38                | 0.1 |         |    |         |     | 200     | 0.1 | 200     | 0.1 | 200     | 0.1 | 200     | 0.1 | 200     | 0.1 | 3289   | 3.4  | 4327          |     | 4.0      |
| Total Procurement Cos                     |                   | 0.4 |         |    |         |     | 0.5     |     | 0.6     |     | 0.6     |     | 0.6     |     | 0.6     |     | 0.6  |      | 13.4          |     | 17.3     |

| INDIVIDUAL MODIFICATION  |  |         |     |     |                |         |    |    |    | Date                              |    | February 1998 |    |         |                               |    |    |          |    |        |    |    |
|--|--|---------|-----|-----|----------------|---------|----|----|----|-----------------------------------|----|---------------|----|---------|-------------------------------|----|----|----------|----|--------|----|----|
| MODIFICATION TITLE: Live Fire Category A (LFCA) [MOD 6] 1-89-05-4230   |  |         |     |     |                |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |    |        |    |    |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327  |  |         |     |     |                |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |    |        |    |    |
| DESCRIPTION / JUSTIFICATION:<br><br>Live Fire Category A consists of the following M1A1 Tank modifications: [1.] Independent Manual Blaster, [2.] Driver's / Loader's Hatch Ballistic Rims, [3.] AFES Wiring Harness Ballistic Protection and [4.] Driver's Hatch Latch Mechanism. Each of these modifications corrects a deficiency relating to tank survivability found during Live - Fire Testing. These modifications planned for concurrent procurement and installation as a portion of Block G. |  |         |     |     |                |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |    |        |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |         |     |     |                |         |    |    |    | <u>PLANNED</u>                    |    |               |    |         | <u>ACCOMPLISHED</u>           |    |    |          |    |        |    |    |
| Preliminary Design Review  |  |         |     |     |                |         |    |    |    | - - - - - 2Q89                    |    |               |    |         | 2Q89                          |    |    |          |    |        |    |    |
| Critical Design Review   |  |         |     |     |                |         |    |    |    | - - - - - 1Q91                    |    |               |    |         | 1Q91                          |    |    |          |    |        |    |    |
| Contractor Test & Eval.  |  |         |     |     |                |         |    |    |    | - - - - - 4Q91                    |    |               |    |         | 4Q91                          |    |    |          |    |        |    |    |
| IPR Production Decision  |  |         |     |     |                |         |    |    |    | - - - - - 2Q92                    |    |               |    |         | 2Q92                          |    |    |          |    |        |    |    |
| TDP Available  |  |         |     |     |                |         |    |    |    | - - - - - 4Q92                    |    |               |    |         | 4Q92                          |    |    |          |    |        |    |    |
| Installation Schedule:   |  |         |     |     |                |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |    |        |    |    |
| Pr Yr  |  | FY 1997 |     |     |                | FY 1998 |    |    |    | FY 1999                           |    |               |    | FY 2000 |                               |    |    | FY 2001  |    |        |    |    |
| Totals   |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4  | 1        | 2  | 3      | 4  |    |
| <b>Inputs</b>  |  | 1400    | 135 | 136 | 135            | 136     | 97 | 97 | 98 | 98                                | 97 | 97            | 98 | 98      | 97                            | 97 | 98 | 98       | 97 | 97     | 98 | 98 |
| <b>Outputs</b>   |  | 1400    | 135 | 136 | 135            | 136     | 97 | 97 | 98 | 98                                | 97 | 97            | 98 | 98      | 97                            | 97 | 98 | 98       | 97 | 97     | 98 | 98 |
|  |  | FY 2002 |     |     |                | FY 2003 |    |    |    | FY 2004                           |    |               |    | FY 2005 |                               |    |    | To       |    | Totals |    |    |
|  |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4  | Complete |    |        |    |    |
| <b>Inputs</b>  |  | 97      | 97  | 98  | 98             | 97      | 97 | 98 | 98 | 45                                |    |               |    |         |                               |    |    |          |    | 4327   |    |    |
| <b>Outputs</b>   |  | 97      | 97  | 98  | 98             | 97      | 97 | 98 | 98 | 45                                |    |               |    |         |                               |    |    |          |    | 4327   |    |    |
| METHOD OF IMPLEMENTATION: Contr. Field Team  |  |         |     |     |                |         |    |    |    | ADMINISTRATIVE LEADTIME: 2 Months |    |               |    |         | PRODUCTION LEADTIME: 6 Months |    |    |          |    |        |    |    |
| Contract Dates: FY 1997 JAN 97   |  |         |     |     | FY 1998 JUN 98 |         |    |    |    | FY 1999 DEC 98                    |    |               |    |         |                               |    |    |          |    |        |    |    |
| Delivery Date: FY 1997 JUL 97  |  |         |     |     | FY 1998 DEC 98 |         |    |    |    | FY 1999 JUN 99                    |    |               |    |         |                               |    |    |          |    |        |    |    |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Live Fire Category A (LFCA) [MOD 6] 1-89-05-4230

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |    |      |      |
|---------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|-----|-------|----|------|------|
|                                 | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$ |      |      |
| RDT&E                           |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| PROCUREMENT                     |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Kit Quantity                    | 2110              |      | 500     |     | 390     |     | 390     |     | 390     |     | 390     |     | 157     |     |         |     |     |     |       |    | 4327 |      |
| Installation Kits               |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Installation Kits, Nonrecurring |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Equipment                       |                   | 9.9  |         | 2.1 |         | 1.2 |         | 1.2 |         | 1.2 |         | 0.9 |         | 0.4 |         |     |     |     |       |    |      | 16.9 |
| Equipment, Nonrecurring         |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Engineering Change Orders       |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Data                            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Training Equipment              |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Support Equipment               |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Other (In - House Spt)          |                   | 0.1  |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      | 0.1  |
| Interim Contractor Support      |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Installation of Hardware        |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| FY 1996 & Prior Eqpt -- Kits    | 1400              | 4.5  | 542     | 3.2 | 168     | 1.0 |         |     |         |     |         |     |         |     |         |     |     |     |       |    | 2110 | 8.7  |
| FY 1997 Eqpt -- Kits            |                   |      |         |     | 222     | 1.3 | 278     | 1.7 |         |     |         |     |         |     |         |     |     |     |       |    | 500  | 3.0  |
| FY 1998 Eqpt -- Kits            |                   |      |         |     |         |     | 112     | 0.6 | 278     | 1.7 |         |     |         |     |         |     |     |     |       |    | 390  | 2.3  |
| FY 1999 Eqpt -- Kits            |                   |      |         |     |         |     |         |     | 112     | 0.6 | 278     | 1.8 |         |     |         |     |     |     |       |    | 390  | 2.4  |
| FY 2000 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     | 112     | 0.6 | 278     | 1.8 |         |     |     |     |       |    | 390  | 2.4  |
| FY 2001 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     |         |     | 112     | 0.7 | 278     | 1.8 |     |     |       |    | 390  | 2.5  |
| FY 2002 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     | 112     | 0.7 | 45  | 0.3 |       |    | 157  | 1.0  |
| FY 2003 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| TC Equip-Kits                   |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |    |      |      |
| Total Installment               | 1400              | 4.5  | 542     | 3.2 | 390     | 2.3 | 390     | 2.3 | 390     | 2.3 | 390     | 2.4 | 390     | 2.5 | 390     | 2.5 | 45  | 0.3 |       |    | 4327 | 22.3 |
| Total Procurement Cos           |                   | 14.5 |         | 5.3 |         | 3.5 |         | 3.5 |         | 3.5 |         | 3.3 |         | 2.9 |         | 2.5 |     | 0.3 |       |    |      | 39.3 |

| INDIVIDUAL MODIFICATION   |  |         |     |     |                |         |    |    |    | Date                              |     | February 1998 |     |         |                               |    |    |          |    |        |    |    |  |  |
|---|--|---------|-----|-----|----------------|---------|----|----|----|-----------------------------------|-----|---------------|-----|---------|-------------------------------|----|----|----------|----|--------|----|----|--|--|
| MODIFICATION TITLE: Battlefield Override (BF/OR) [MOD 7] 1-89-05-4229   |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |    |        |    |    |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 81 TOTAL RQMT = 4408  |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |    |        |    |    |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>Battlefield Override (BF/OR) is a completely mechanical bypass of the mechanical fuel / engine / transmission controls requiring no primary or back - up electrical system for operation. The purpose of BF/OR is to allow an Abrams Tank to extricate itself from the battlefield when normal fuel flow, engine control or transmission shifting have been lost through battle damage. BF/OR is designed for use in combat situations only; has no peacetime recovery role and is based on the premise that crew / tank self recovery takes priority over potential mechanical damage resulting from uncontrolled operation. This modification will significantly increase crew / tank survivability in a combat environment.</p> |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |    |        |    |    |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |         |     |     |                |         |    |    |    | <u>PLANNED</u>                    |     |               |     |         | <u>ACCOMPLISHED</u>           |    |    |          |    |        |    |    |  |  |
| Preliminary Design Review   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 4Q91                          |    |    |          |    | 4Q91   |    |    |  |  |
| Critical Design Review  |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 1Q92                          |    |    |          |    | 2Q92   |    |    |  |  |
| Contractor Test & Eval.   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 2Q92                          |    |    |          |    | 3Q92   |    |    |  |  |
| Development Test & Eval.  |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 1Q93                          |    |    |          |    | 3Q93   |    |    |  |  |
| IPR Production Decision   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 1Q93                          |    |    |          |    | 3Q93   |    |    |  |  |
| TDP Available   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 3Q94                          |    |    |          |    | 1Q95   |    |    |  |  |
| Installation Schedule:  |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |    |        |    |    |  |  |
| Pr Yr   |  | FY 1997 |     |     |                | FY 1998 |    |    |    | FY 1999                           |     |               |     | FY 2000 |                               |    |    | FY 2001  |    |        |    |    |  |  |
| Totals  |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4  | 1                                 | 2   | 3             | 4   | 1       | 2                             | 3  | 4  | 1        | 2  | 3      | 4  |    |  |  |
| <b>Inputs</b>   |  | 1421    | 114 | 115 | 114            | 115     | 84 | 83 | 83 | 83                                | 223 | 222           | 222 | 222     | 84                            | 83 | 83 | 83       | 84 | 83     | 83 | 83 |  |  |
| <b>Outputs</b>  |  | 1421    | 114 | 115 | 114            | 115     | 84 | 83 | 83 | 83                                | 223 | 222           | 222 | 222     | 84                            | 83 | 83 | 83       | 84 | 83     | 83 | 83 |  |  |
|   |  | FY 2002 |     |     |                | FY 2003 |    |    |    | FY 2004                           |     |               |     | FY 2005 |                               |    |    | To       |    | Totals |    |    |  |  |
|   |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4  | 1                                 | 2   | 3             | 4   | 1       | 2                             | 3  | 4  | Complete |    |        |    |    |  |  |
| <b>Inputs</b>   |  | 84      | 83  | 83  | 83             | 77      | 77 | 77 | 77 |                                   |     |               |     |         |                               |    |    |          |    | 4408   |    |    |  |  |
| <b>Outputs</b>  |  | 84      | 83  | 83  | 83             | 77      | 77 | 77 | 77 |                                   |     |               |     |         |                               |    |    |          |    | 4408   |    |    |  |  |
| METHOD OF IMPLEMENTATION: Depot Field Teams   |  |         |     |     |                |         |    |    |    | ADMINISTRATIVE LEADTIME: 2 Months |     |               |     |         | PRODUCTION LEADTIME: 6 Months |    |    |          |    |        |    |    |  |  |
| Contract Dates: FY 1997 MAY 97  |  |         |     |     | FY 1998 MAY 98 |         |    |    |    | FY 1999 MAY 99                    |     |               |     |         |                               |    |    |          |    |        |    |    |  |  |
| Delivery Date: FY 1997 NOV 97   |  |         |     |     | FY 1998 NOV 98 |         |    |    |    | FY 1999 NOV 99                    |     |               |     |         |                               |    |    |          |    |        |    |    |  |  |

| INDIVIDUAL MODIFICATION          |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    | Date  |      | February 1998 |  |
|----------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|---|------|---------------|--|
| MODIFICATION TITLE (Cont):       |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    | Battlefield Override (BF/OR) [MOD 7] 1-89-05-4229 |      |               |  |
| FINANCIAL PLAN: (\$ in Millions) |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
|                                  | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |    | TOTAL   |      |               |  |
|                                  | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$ | Qty   | \$   |               |  |
| RDT&E                            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| PROCUREMENT                      |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Kit Quantity                     | 2435              |      | 333     |     | 333     |     | 333     |     | 333     |     | 333     |     | 308     |     |         |     |     |    | 4408  |      |               |  |
| Installation Kits                |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Installation Kits, Nonrecurring  |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Equipment                        |                   | 3.9  |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.3 |         |     |     |    |   | 6.7  |               |  |
| Equipment, Nonrecurring          |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Engineering Change Orders        |                   | 1.1  |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   | 1.1  |               |  |
| Engineering / Testing            |                   | 1.9  |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   | 1.9  |               |  |
| Training Equipment               |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Support Equipment                |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Other                            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Interim Contractor Support       |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Installation of Hardware         |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| FY 1996 & Prior Eqpt -- Kits     | 1421              | 6.8  | 458     | 2.2 | 333     | 1.6 | 223     | 0.9 |         |     |         |     |         |     |         |     |     |    | 2435  | 11.5 |               |  |
| FY 1997 Eqpt -- Kits             |                   |      |         |     |         |     | 333     | 1.4 |         |     |         |     |         |     |         |     |     |    | 333   | 1.4  |               |  |
| FY 1998 Eqpt -- Kits             |                   |      |         |     |         |     | 333     | 1.4 |         |     |         |     |         |     |         |     |     |    | 333   | 1.4  |               |  |
| FY 1999 Eqpt -- Kits             |                   |      |         |     |         |     |         |     | 333     | 0.6 |         |     |         |     |         |     |     |    | 333   | 0.6  |               |  |
| FY 2000 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     | 333     | 0.3 |         |     |         |     |     |    | 333   | 0.3  |               |  |
| FY 2001 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |     | 333     | 0.3 |         |     |     |    | 333   | 0.3  |               |  |
| FY 2002 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |     |         |     | 308     | 0.3 |     |    | 308   | 0.3  |               |  |
| FY 2003 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| TC Equip-Kits                    |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Total Installment                | 1421              | 6.8  | 458     | 2.2 | 333     | 1.6 | 889     | 3.7 | 333     | 0.6 | 333     | 0.3 | 333     | 0.3 | 308     | 0.3 |     |    | 4408  | 15.8 |               |  |
| Total Procurement Cos            |                   | 13.7 |         | 2.7 |         | 2.1 |         | 4.2 |         | 1.1 |         | 0.8 |         | 0.6 |         | 0.3 |     |    |   | 25.5 |               |  |

| INDIVIDUAL MODIFICATION  |        |         |     |     |     |         |     |     |     |                |     |     |     |         | Date          |     |                     |          |        |     |     |
|--|--------|---------|-----|-----|-----|---------|-----|-----|-----|----------------|-----|-----|-----|---------|---------------|-----|---------------------|----------|--------|-----|-----|
|  |        |         |     |     |     |         |     |     |     |                |     |     |     |         | February 1998 |     |                     |          |        |     |     |
| MODIFICATION TITLE: Live Fire Category B (LFCB) [MOD 8] 1-94-05-4481   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 81 TOTAL RQMT = 4408   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
| DESCRIPTION / JUSTIFICATION:<br><br>Live Fire Category B includes the following individual modifications: [1.] Improved Gunner's Station [2.] Smoke Generator Fuel Line and [3.] Turret Ammunition Door Locking Mechanism. Each of these modifications corrects a vehicle deficiency found during Live Fire testing. These modifications are planned for concurrent procurement and application as a portion of B G. |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
|  |        |         |     |     |     |         |     |     |     | <u>PLANNED</u> |     |     |     |         |               |     | <u>ACCOMPLISHED</u> |          |        |     |     |
|  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
|  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
|  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
|  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
| Installation Schedule:   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
|  | Pr Yr  | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999        |     |     |     | FY 2000 |               |     |                     | FY 2001  |        |     |     |
|  | Totals | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1       | 2             | 3   | 4                   | 1        | 2      | 3   | 4   |
| <b>Inputs</b>  | 2010   | 241     | 242 | 242 | 242 | 101     | 101 | 101 | 101 | 101            | 101 | 101 | 101 | 101     | 101           | 101 | 101                 | 101      | 101    | 17  |     |
| <b>Outputs</b>   | 1058   | 238     | 238 | 238 | 238 | 101     | 101 | 101 | 101 | 101            | 101 | 101 | 101 | 101     | 101           | 101 | 101                 | 101      | 101    | 101 | 101 |
|  |        | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004        |     |     |     | FY 2005 |               |     |                     | To       | Totals |     |     |
|  |        | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1       | 2             | 3   | 4                   | Complete |        |     |     |
| <b>Inputs</b>  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          | 4408   |     |     |
| <b>Outputs</b>   |        | 101     | 101 | 101 | 101 | 95      | 95  | 94  | 94  |                |     |     |     |         |               |     |                     |          | 4408   |     |     |
| METHOD OF IMPLEMENTATION: Depot Field Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 5 Months  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
| Contract Dates: FY 1997 JUL 97 FY 1998 JUL 98 FY 1999 JUL 99   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |
| Delivery Date: FY 1997 DEC 97 FY 1998 DEC 98 FY 1999 DEC 99  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |               |     |                     |          |        |     |     |



| INDIVIDUAL MODIFICATION          |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | Date   |    | February 1998 |      |     |
|----------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|--|----|---------------|------|-----|
| MODIFICATION TITLE (Cont):       |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | Live Fire Category B (LFCB) [MOD 8] 1-94-05-4481 |    |               |      |     |
| FINANCIAL PLAN: (\$ in Millions) |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
|                                  | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC   |    | TOTAL         |      |     |
|                                  | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty  | \$ | Qty           | \$   |     |
| RDT&E                            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| PROCUREMENT                      |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Kit Quantity                     | 2010              |     | 967     |     | 404     |     | 404     |     | 404     |     | 219     |     |         |     |         |     |  |    |               | 4408 |     |
| Installation Kits                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Installation Kits, Nonrecurring  |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Equipment                        |                   | 0.8 |         | 0.4 |         | 0.2 |         | 0.2 |         | 0.2 |         | 0.1 |         |     |         |     |  |    |               |      | 1.9 |
| Equipment, Nonrecurring          |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Engineering Change Orders        |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Data                             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Training Equipment               |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Support Equipment                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Other                            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Interim Contractor Support       |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Installation of Hardware         |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| FY 1996 & Prior Eqpt -- Kits     | 1058              | 1.6 | 952     | 1.4 |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               | 2010 | 3.0 |
| FY 1997 Eqpt -- Kits             |                   |     |         |     | 404     | 0.6 | 404     | 0.6 | 159     | 0.2 |         |     |         |     |         |     |  |    |               | 967  | 1.4 |
| FY 1998 Eqpt -- Kits             |                   |     |         |     |         |     |         |     | 245     | 0.4 | 159     | 0.2 |         |     |         |     |  |    |               | 404  | 0.6 |
| FY 1999 Eqpt -- Kits             |                   |     |         |     |         |     |         |     |         |     | 245     | 0.4 | 159     | 0.3 |         |     |  |    |               | 404  | 0.7 |
| FY 2000 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     | 245     | 0.4 | 159     | 0.2 |  |    |               | 404  | 0.6 |
| FY 2001 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     | 219     | 0.4 |  |    |               | 219  | 0.4 |
| FY 2002 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| FY 2003 Eqpt -- kits             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| TC Equip-Kits                    |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |  |    |               |      |     |
| Total Installment                | 1058              | 1.6 | 952     | 1.4 | 404     | 0.6 | 404     | 0.6 | 404     | 0.6 | 404     | 0.6 | 404     | 0.7 | 378     | 0.6 |  |    |               | 4408 | 6.7 |
| Total Procurement Cos            |                   | 2.4 |         | 1.8 |         | 0.8 |         | 0.8 |         | 0.8 |         | 0.7 |         | 0.7 |         | 0.6 |  |    |               |      | 8.6 |

| INDIVIDUAL MODIFICATION   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     | Date | February 1998 |                     |   |   |
|---|--------|---------|-----|-----|-----|---------|-----|-----|-----|----------------|-----|-----|-----|---------|-----|-----|------|---------------|---------------------|---|---|
| MODIFICATION TITLE: Driver's Viewer Quick Release (DVQR) [MOD 9] 1-92-05-4427   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 181 TOTAL RQMT = 4508   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Driver's Night Viewer Quick Release (DVQR) is a modification to the Driver's Night Viewer Periscope Retainer. It Provides a more positive locking feature which will preclude inadvertent release of the periscope from its operating position. Its primary purpose is to prevent the Viewer/Periscope from falling into the driver's lap when it is moved out of the driver's way as he exits the vehicle precluding injury to the driver as well as damage to the periscope. Because of its potential importance in emergency driver egress this modification has a secondary safety designation. It is however, primarily an operational improvement.</p> |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     | <u>PLANNED</u> |     |     |     |         |     |     |      |               | <u>ACCOMPLISHED</u> |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| Installation Schedule:  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   | Pr Yr  | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999        |     |     |     | FY 2000 |     |     |      | FY 2001       |                     |   |   |
|   | Totals | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1       | 2   | 3   | 4    | 1             | 2                   | 3 | 4 |
| <b>Inputs</b>   | 1505   | 227     | 228 | 228 | 228 | 261     | 261 | 262 | 262 | 261            | 261 | 262 | 262 |         |     |     |      |               |                     |   |   |
| <b>Outputs</b>  | 785    | 180     | 180 | 180 | 180 | 227     | 228 | 228 | 228 | 261            | 261 | 262 | 262 | 261     | 261 | 262 | 262  |               |                     |   |   |
|   |        | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004        |     |     |     | FY 2005 |     |     |      | To            | Totals              |   |   |
|   |        | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1       | 2   | 3   | 4    | Complete      |                     |   |   |
| <b>Inputs</b>   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               | 4508                |   |   |
| <b>Outputs</b>  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               | 4508                |   |   |
| METHOD OF IMPLEMENTATION: Depot Field Teams ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| Contract Dates: FY 1997 OCT 96 FY 1998 OCT 97 FY 1999 OCT 98  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| Delivery Date: FY 1997 DEC 96 FY 1998 DEC 97 FY 1999 DEC 98   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Driver's Viewer Quick Release (DVQR) [MOD 9] 1-92-05-4427

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|                                 | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                     |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                    | 1505              |     | 911     |     | 1046    |     | 1046    |     |         |     |         |    |         |    |         |    |     |    |       | 4508 |     |
| Installation Kits               |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits, Nonrecurring |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Equipment                       |                   | 0.2 |         | 0.1 |         | 0.1 |         | 0.1 |         |     |         |    |         |    |         |    |     |    |       |      | 0.5 |
| Equipment, Nonrecurring         |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders       |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Data                            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment              |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment               |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Other                           |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support      |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware        |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    | 785               | 0.1 | 720     | 0.1 |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       | 1505 | 0.2 |
| FY 1997 Eqpt -- Kits            |                   |     |         |     | 911     | 0.2 |         |     |         |     |         |    |         |    |         |    |     |    |       | 911  | 0.2 |
| FY 1998 Eqpt -- Kits            |                   |     |         |     |         |     | 1046    | 0.2 |         |     |         |    |         |    |         |    |     |    |       | 1046 | 0.2 |
| FY 1999 Eqpt -- Kits            |                   |     |         |     |         |     |         |     | 1046    | 0.2 |         |    |         |    |         |    |     |    |       | 1046 | 0.2 |
| FY 2000 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment               | 785               | 0.1 | 720     | 0.1 | 911     | 0.2 | 1046    | 0.2 | 1046    | 0.2 |         |    |         |    |         |    |     |    |       | 4508 | 0.8 |
| Total Procurement Cos           |                   | 0.3 |         | 0.2 |         | 0.3 |         | 0.3 |         | 0.2 |         |    |         |    |         |    |     |    |       |      | 1.3 |

| INDIVIDUAL MODIFICATION  |  |                |    |    |    |                |    |    |    | Date                              |    | February 1998 |    |         |                               |    |   |          |   |        |   |
|--|--|----------------|----|----|----|----------------|----|----|----|-----------------------------------|----|---------------|----|---------|-------------------------------|----|---|----------|---|--------|---|
| MODIFICATION TITLE: Pulse - Jet System (PJS) [MOD 10] 1-92-05-4475   |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 228 TOTAL RQMT = 4555  |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Pulse - Jet System (PJS) replaces a large portion of the current engine air filtration system. The purpose of PJS is to extend the time between required air path servicing in any severe dust environment. The current system requires frequent servicing in such an environment which can introduce dust into the clean air path as each servicing requires that the path is broken in order to complete the service. PJS greatly reduces the number of times the clean air path requires servicing. The result is improved combat performance and reduced O&amp;S costs. PJS was identified as user priority number one by Abrams units involved in Operation Desert Storm (ODS). NOTE: 180ea additional PJS Kits were procured using FY97 DBOF OSCR (O &amp; S Cost Rediction) funds. This procurement is NOT a part of the Abrams tank MOD Line procurements but the 180 are being installed using MOD Line \$\$\$, thus total procured will be 180 less than the total installed.</p> |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                |    |    |    |                |    |    |    | <u>PLANNED</u>                    |    |               |    |         | <u>ACCOMPLISHED</u>           |    |   |          |   |        |   |
| Preliminary Design Review  |  |                |    |    |    |                |    |    |    | - - - - - 2Q92                    |    |               |    |         | 2Q92                          |    |   |          |   |        |   |
| Critical Design Review   |  |                |    |    |    |                |    |    |    | - - - - - 3Q92                    |    |               |    |         | 3Q92                          |    |   |          |   |        |   |
| Contractor Test & Eval.  |  |                |    |    |    |                |    |    |    | - - - - - 3Q93                    |    |               |    |         | 3Q93                          |    |   |          |   |        |   |
| Development Test & Eval.   |  |                |    |    |    |                |    |    |    | - - - - - 3Q93                    |    |               |    |         | 3Q93                          |    |   |          |   |        |   |
| Initial Operational Test & Eval.   |  |                |    |    |    |                |    |    |    | - - - - - 4Q93                    |    |               |    |         | 4Q93                          |    |   |          |   |        |   |
| IPR Production Decision  |  |                |    |    |    |                |    |    |    | - - - - - 4Q93                    |    |               |    |         | 4Q93                          |    |   |          |   |        |   |
| TDP Available  |  |                |    |    |    |                |    |    |    | - - - - - 2Q96                    |    |               |    |         | 2Q96                          |    |   |          |   |        |   |
| Installation Schedule:   |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| Pr Yr  |  | FY 1997        |    |    |    | FY 1998        |    |    |    | FY 1999                           |    |               |    | FY 2000 |                               |    |   | FY 2001  |   |        |   |
| Totals   |  | 1              | 2  | 3  | 4  | 1              | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>  |  | 543            | 36 | 36 | 36 | 36             | 9  |    |    | 75                                | 75 | 74            | 74 | 74      | 74                            | 41 |   |          |   |        |   |
| <b>Outputs</b>   |  | 17             | 57 | 57 | 57 | 45             | 45 | 45 | 45 | 75                                | 75 | 74            | 74 | 74      | 74                            | 41 |   |          |   |        |   |
|  |  | FY 2002        |    |    |    | FY 2003        |    |    |    | FY 2004                           |    |               |    | FY 2005 |                               |    |   | To       |   | Totals |   |
|  |  | 1              | 2  | 3  | 4  | 1              | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4 | Complete |   |        |   |
| <b>Inputs</b>  |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   | 3643     |   | 4375   |   |
| <b>Outputs</b>   |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   | 3643     |   | 4555   |   |
| METHOD OF IMPLEMENTATION: Contractor Teams   |  |                |    |    |    |                |    |    |    | ADMINISTRATIVE LEADTIME: 3 Months |    |               |    |         | PRODUCTION LEADTIME: 8 Months |    |   |          |   |        |   |
| Contract Dates:  |  | FY 1997 DEC 97 |    |    |    | FY 1998 FEB 98 |    |    |    | FY 1999 FEB 99                    |    |               |    |         |                               |    |   |          |   |        |   |
| Delivery Date:   |  | FY 1997 APR 98 |    |    |    | FY 1998 OCT 98 |    |    |    | FY 1999 OCT 99                    |    |               |    |         |                               |    |   |          |   |        |   |

| INDIVIDUAL MODIFICATION                         |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Date   |       | February 1998 |      |       |
|---|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|--|-------|---------------|------|-------|
| MODIFICATION TITLE (Cont):                      |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Pulse - Jet System (PJS) [MOD 10] 1-92-05-4475 |       |               |      |       |
| FINANCIAL PLAN: (\$ in Millions)                |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
|   | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |       | TOTAL         |      |       |
|   | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$    | Qty           | \$   |       |
| RDT&E   |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| PROCUREMENT                                     |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Kit Quantity                                    | 543               |      | 144     |     | 45      |     |         |     |         |     |         |    |         |    |         |    | 3643   |       | 4375          |      |       |
| Installation Kits                               |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Installation Kits, Nonrecurring                 |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Equipment                                       |                   | 24.6 |         | 6.7 |         | 2.1 |         |     |         |     |         |    |         |    |         |    |  | 253.2 |               |      | 286.6 |
| Equipment, Nonrecurring                         |                   | 0.6  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      | 0.6   |
| Engineering Change Orders                       |                   | 1.0  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      | 1.0   |
| Testing   |                   | 0.9  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      | 0.9   |
| Training Equipment                              |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Support Equipment                               |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Other   |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| * + 180ea Procurred with DBOF OSCR Funds.       |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| ** 228 installed in CY97 using prior year funds |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Installation of Hardware                        |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 1996 & Prior Eqpt -- Kits                    | 17                | 1.9  | 228     | **  | 180     | 1.4 | 118     | 0.9 |         |     |         |    |         |    |         |    |  |       |               | 543  | 4.2   |
| FY 1997 Eqpt -- Kits                            |                   |      |         |     |         |     | 144     | 1.2 |         |     |         |    |         |    |         |    |  |       |               | 144  | 1.2   |
| FY 1998 Eqpt -- Kits                            |                   |      |         |     |         |     | 36      | 0.3 | 189     | 1.5 |         |    |         |    |         |    |  |       |               | 225  | 1.8   |
| FY 1999 Eqpt -- Kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2000 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2001 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2002 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2003 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| TC Equip -- 3643 Kits                           |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | 3643   | 43.7  | 3643          | 43.7 |       |
| Total Installment                               | 17                | 1.9  | 228     |     | 180     | 1.4 | 298     | 2.4 | 189     | 1.5 |         |    |         |    |         |    | 3643   | 43.7  | 4555          | 50.9 |       |
| Total Procurement Cos                           |                   | 29.0 |         | 6.7 |         | 3.5 |         | 2.4 |         | 1.5 |         |    |         |    |         |    |  | 296.9 |               |      | 340.0 |

| INDIVIDUAL MODIFICATION   |         |     |     |     |         |     |     |     |         | Date           |   | February 1998 |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---------|-----|-----|-----|---------|-----|-----|-----|---------|----------------|---|---------------|---------|---|---------------------|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|------|----------------|---|---|---|---|---|---|---|---------------|------|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|--|----------------|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: Mounted Water Ration Heater (MWRH) [MOD 11] 1-92-05-4426  |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1501, M1A2 = 0 TOTAL RQMT = 1501   |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:  |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>The purpose of the Mounted Water Ration Heater (MWRH) is to provide the Abrams tank crew with the internal capability to heat water and rations during extended field operations without having to exit from the protection of the vehicle.</p> <p>NOTE: ATCOM / PM SOLDIER procured the MWRH. Abrams tank funds / data found herein are for the integration kit and installation only. Integration Kit is being fabricated by Anniston Army Depot (ANAD) so there is no Hardware Contract. Installation will also be by ANAD.</p>   |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |     |     |     |         |     |     |     |         | <u>PLANNED</u> |   |               |         |   | <u>ACCOMPLISHED</u> |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Preliminary Design Review   |         |     |     |     |         |     |     |     |         | - - - - - 4Q92 |   |               |         |   | 4Q92                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Critical Design Review  |         |     |     |     |         |     |     |     |         | - - - - - 1Q93 |   |               |         |   | 1Q93                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Contractor Test & Eval.   |         |     |     |     |         |     |     |     |         | - - - - - 1Q93 |   |               |         |   | 1Q93                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Development Test & Eval.  |         |     |     |     |         |     |     |     |         | - - - - - 3Q93 |   |               |         |   | 3Q93                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Operational Test & Eval.  |         |     |     |     |         |     |     |     |         | - - - - - 3Q93 |   |               |         |   | 3Q93                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| IPR Production Decision   |         |     |     |     |         |     |     |     |         | - - - - - 2Q95 |   |               |         |   | 4Q95                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| TDP Available   |         |     |     |     |         |     |     |     |         | - - - - - 1Q96 |   |               |         |   | 1Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:  |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td><b>Inputs</b></td> <td>1501</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>187</td><td>187</td><td>188</td><td>188</td> <td>188</td><td>188</td><td>188</td><td>187</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4    | 1              | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 1501 |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> | 187 | 187 | 188 | 188 | 188 | 188 | 188 | 187 |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr   | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999 |                |   |               | FY 2000 |   |                     |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Totals</b>   | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   | 1501    |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  | 187     | 187 | 188 | 188 | 188     | 188 | 188 | 187 |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>1501</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td>1501</td> </tr> </tbody> </table>  |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   | 1501 | <b>Outputs</b> |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  | 1501 |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
|   | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004 |                |   |               | FY 2005 |   |                     |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             | 1501   |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             | 1501   |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Depot Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months   |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates: FY 1997 N / A FY 1998 N / A FY 1999 N / A   |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date: FY 1997 N / A FY 1998 N / A FY 1999 N / A  |         |     |     |     |         |     |     |     |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |      |                |   |   |   |   |   |   |   |               |      |  |  |  |  |  |  |  |  |      |  |  |  |  |  |  |  |  |  |  |                |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Mounted Water Ration Heater (MWRH) [MOD 11] 1-92-05-4426

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---|-------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                               |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                              | 1501              |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       | 1501 |     |
| Installation Kits                         |                   | 1.9 |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 1.9 |
| Installation Kits, Nonrecurring Equipment |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment, Nonrecurring                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders                 |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data                                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment                        |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment                         |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other                                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support                |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware                  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits              |                   |     | 750     | 0.1 | 751     | 0.1 |         |    |         |    |         |    |         |    |         |    |     |    |       | 1501 | 0.2 |
| FY 1997 Eqpt -- Kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1999 Eqpt -- Kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                             |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment                         |                   |     | 750     | 0.1 | 751     | 0.1 |         |    |         |    |         |    |         |    |         |    |     |    |       | 1501 | 0.2 |
| Total Procurement Cos                     |                   | 1.9 |         | 0.1 |         | 0.1 |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 2.1 |

| INDIVIDUAL MODIFICATION  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | Date                              |          |   |        | February 1998                  |  |  |  |      |  |  |  |
|--|--|---------------|----|----|----|---------------|----|----|----|---------------|---|---|---|---------|---|---|-----------------------------------|----------|---|--------|--------------------------------|--|--|--|------|--|--|--|
| MODIFICATION TITLE: System Enhancement Package (SEP) [MOD 12] 1-96-05-4505   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 0, M1A2 = 627 TOTAL RQMT = 627  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The System Enhancement Package (SEP) consists of M1A2 hardware and software changes which support the US Army's "Digitization of the Battlefield" effort. This effort upgrades the M1A2 electronics suite with improved processors, increased me and software partitioning necessary for the M1A2 to operate in the Army's planned common operating environment and adds second generation thermal imaging capabilities to the Commander's Independent Thermal Viewer (CITV) and Gunner's Primary Sight (GPS) which are designed to significantly increase the capabilities of these Fire-Control sub-systems. This upgrade also allow future growth without significant changes to the vehicle architecture so that insertion of future technology may be facilitated. These changes are designed to be exportable to other Abrams platforms, meet Army requirements for joint interoperability with Combined Arms Command &amp; Control Systems and maximize commonality with other Ground Combat systems. For this effort procurement funds will include installation costs.</p> |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | <u>PLANNED</u>                    |          |   |        | <u>ACCOMPLISHED</u>            |  |  |  |      |  |  |  |
| Preliminary Design Review  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 3Q95                           |  |  |  | 3Q95 |  |  |  |
| Critical Design Review   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 2Q97                           |  |  |  | 3Q97 |  |  |  |
| Contractor Test & Eval.  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 3Q98                           |  |  |  |      |  |  |  |
| Development Test & Eval.   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 1Q99                           |  |  |  |      |  |  |  |
| Initial Operational Test & Eval.   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 2Q99                           |  |  |  |      |  |  |  |
| IPR Production Decision  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 2Q99                           |  |  |  |      |  |  |  |
| TDP Available  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 4Q99                           |  |  |  |      |  |  |  |
| Installation Schedule:   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| Pr Yr  |  | FY 1997       |    |    |    | FY 1998       |    |    |    | FY 1999       |   |   |   | FY 2000 |   |   |                                   | FY 2001  |   |        |                                |  |  |  |      |  |  |  |
| Totals   |  | 1             | 2  | 3  | 4  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1       | 2 | 3 | 4                                 | 1        | 2 | 3      | 4                              |  |  |  |      |  |  |  |
| <b>Inputs</b>  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   | 10     | 15                             |  |  |  |      |  |  |  |
| <b>Outputs</b>   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
|  |  | FY 2002       |    |    |    | FY 2003       |    |    |    | FY 2004       |   |   |   | FY 2005 |   |   |                                   | To       |   | Totals |                                |  |  |  |      |  |  |  |
|  |  | 1             | 2  | 3  | 4  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1       | 2 | 3 | 4                                 | Complete |   |        |                                |  |  |  |      |  |  |  |
| <b>Inputs</b>  |  | 11            | 11 | 11 | 12 | 16            | 16 | 16 | 17 |               |   |   |   |         |   |   |                                   | 492      |   | 627    |                                |  |  |  |      |  |  |  |
| <b>Outputs</b>   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor Teams   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | ADMINISTRATIVE LEADTIME: 6 Months |          |   |        | PRODUCTION LEADTIME: 10 Months |  |  |  |      |  |  |  |
| Contract Dates:  |  | FY 1997 N / A |    |    |    | FY 1998 N / A |    |    |    | FY 1999 N / A |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| Delivery Date:   |  | FY 1997 N / A |    |    |    | FY 1998 N / A |    |    |    | FY 1999 N / A |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): System Enhancement Package (SEP) [MOD 12] 1-96-05-4505

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |      | FY 2002 |      | FY 2003 |       | TC    |       | TOTAL |       |       |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|------|---------|------|---------|-------|-------|-------|-------|-------|-------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$   | Qty     | \$   | Qty     | \$    | Qty   | \$    | Qty   | \$    |       |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    | 25      |      | 45      |      | 65      |       | 492   |       | 627   |       |       |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         | 46.5 |         | 82.8 |         | 107.4 |       | 655.5 |       | 892.2 |       |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    | 2.9     |    |         |      |         |      |         |       |       |       |       |       | 2.9   |
| Data                            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |       |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    | 2.9     |    | 46.5    |      | 82.8    |      | 107.4   |       | 655.5 |       |       |       | 895.1 |

| INDIVIDUAL MODIFICATION   |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |   |         |                               |   |   |          |   |        |   |
|---|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|---|---------|-------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Embedded Battle Command (EBC) [MOD 13] 1-96-05-4516   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A2  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>Embedded Battle Command (EBC) is a part of Horizontal Battlefield Digitization (HBD). EBC is an annual software "drop" into each fielded M1A2 tank. There is no hardware associated with this modification. The purpose of EBC is to assure that all M1A2's have up - to - date and identical computer software with the latest State - of - the - Art changes installed on a regular b. There is no delivery or installation schedule in the normal sense of these terms. Each fielded M1A2 will have its onboard computers upgraded every year. |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |   |   |          |   |        |   |
| Preliminary Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 2Q97                    |   |               |   |         | 3Q97                          |   |   |          |   |        |   |
| Critical Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 3Q97                    |   |               |   |         | 4Q97                          |   |   |          |   |        |   |
| Contractor Test & Eval.   |  |               |   |   |   |               |   |   |   | - - - - - 1Q98                    |   |               |   |         | 1Q98                          |   |   |          |   |        |   |
| Development Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 3Q98                    |   |               |   |         |                               |   |   |          |   |        |   |
| Initial Operational Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |   |         |                               |   |   |          |   |        |   |
| IPR Production Decision   |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |   |         |                               |   |   |          |   |        |   |
| Installation Schedule:  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |   | FY 2000 |                               |   |   | FY 2001  |   |        |   |
| Totals  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | 1        | 2 | 3      | 4 |
| Inputs N / A  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Outputs N / A   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
|   |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |   | FY 2005 |                               |   |   | To       |   | Totals |   |
|   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | Complete |   |        |   |
| Inputs N / A  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Outputs N / A   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION: Fld Svc Rep Inst  |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 1 Months |   |               |   |         | PRODUCTION LEADTIME: 8 Months |   |   |          |   |        |   |
| Contract Dates:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Embedded Battle Command (EBC) [MOD 13] 1-96-05-4516

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |     | TOTAL |     |  |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|-----|-------|-----|--|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$  | Qty   | \$  |  |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Data (Software Only)            |                   |    |         |    |         |    |         |    | 1.0     |    | 1.0     |    | 1.1     |    | 1.0     |    |     | 5.5 |       | 9.6 |  |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    | 1.0     |    | 1.0     |    | 1.1     |    | 1.0     |    |     | 5.5 |       | 9.6 |  |

| INDIVIDUAL MODIFICATION  |  |         |   |   |               |         |     |     |     | Date                              |   | February 1998 |   |         |                               |   |   |          |   |   |   |  |  |  |
|--|--|---------|---|---|---------------|---------|-----|-----|-----|-----------------------------------|---|---------------|---|---------|-------------------------------|---|---|----------|---|---|---|--|--|--|
| MODIFICATION TITLE: External Auxiliary Pwr Unit (EAPU) [MOD 14] 1-85-05-4057   |  |         |   |   |               |         |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1836, M1A2 = 0 TOTAL RQMT = 183   |  |         |   |   |               |         |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The current use of the Abrams Tank in stationary night defensive position, known as Silent Watch Mode, requires long duration idling of the AGT - 1500 vehicle main engine in order to generate the required electricity. The External Auxiliary Power Unit (EAPU) will provide power for this type of requirement at greatly reduced fuel usage and without main engine wear. The EAPU continuously delivers 2.2 KW of power at 28 Volts DC. The EAPU will be mounted in the left side of the turret bustle rack will be fully integrated with the tank electrical systems. The EAPU has its own fuel supply and can provide power for 10 tc hours on one tank - full of diesel fuel. The Army is procuring an additional 336 EAPUs as a result of an FY97 Congressional plus-up. The EAPU will be used with the M1A2s until they are retrofitted with SEP (including the Under Armor EAPU).</p> |  |         |   |   |               |         |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |         |   |   |               |         |     |     |     | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |   |   |          |   |   |   |  |  |  |
| Preliminary Design Review  |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   | ** This is a re-buy of an item las procured in FY 92. |   |  |  |  |
| Critical Design Review   |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   |   |   |  |  |  |
| Contractor Test & Eval.  |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   |   |   |  |  |  |
| Development Test & Eval.   |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   |   |   |  |  |  |
| Initial Operational Test & Eval.   |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   |   |   |  |  |  |
| IPR Production Decision  |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   |   |   |  |  |  |
| T D P Available  |  |         |   |   |               |         |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |   |   |          |   |   |   |  |  |  |
| Installation Schedule:   |  |         |   |   |               |         |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
| Pr Yr  |  | FY 1997 |   |   |               | FY 1998 |     |     |     | FY 1999                           |   |               |   | FY 2000 |                               |   |   | FY 2001  |   |   |   |  |  |  |
| Totals   |  | 1       | 2 | 3 | 4             | 1       | 2   | 3   | 4   | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | 1        | 2 | 3   | 4 |  |  |  |
| <b>Inputs</b>  |  |         |   |   |               |         | 40  | 104 | 104 | 88                                |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
| <b>Outputs</b>   |  |         |   |   |               | 36      | 100 | 100 | 100 |                                   |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
|  |  | FY 2002 |   |   |               | FY 2003 |     |     |     | FY 2004                           |   |               |   | FY 2005 |                               |   |   | To       |   | Totals  |   |  |  |  |
|  |  | 1       | 2 | 3 | 4             | 1       | 2   | 3   | 4   | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | Complete |   |   |   |  |  |  |
| <b>Inputs</b>  |  |         |   |   |               |         |     |     |     |                                   |   |               |   |         |                               |   |   | 1164     |   | 1500  |   |  |  |  |
| <b>Outputs</b>   |  |         |   |   |               |         |     |     |     |                                   |   |               |   |         |                               |   |   | 1164     |   | 1500  |   |  |  |  |
| METHOD OF IMPLEMENTATION: Contr./Depot Teams   |  |         |   |   |               |         |     |     |     | ADMINISTRATIVE LEADTIME: 4 Months |   |               |   |         | PRODUCTION LEADTIME: 6 Months |   |   |          |   |   |   |  |  |  |
| Contract Dates: FY 1997 SEP 97   |  |         |   |   | FY 1998 N / A |         |     |     |     | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |
| Delivery Date: FY 1997 MAR 98  |  |         |   |   | FY 1998 N / A |         |     |     |     | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |   |   |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): External Auxiliary Pwr Unit (EAPU) [MOD 14] 1-85-05-4057

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |      | TOTAL |      |      |
|---------------------------------|-------------------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|------|------|-------|------|------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$   | Qty   | \$   |      |
| RDT&E                           |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| PROCUREMENT                     |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Kit Quantity                    |                   |    | 336     |    |         |     |         |    |         |    |         |    |         |    |         |    | 1164 |      | 1500  |      |      |
| Installation Kits               |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Installation Kits, Nonrecurring |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Equipment                       |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Equipment, Nonrecurring         |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Engineering Change Orders       |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Data                            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Training Equipment              |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Support Equipment               |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Other                           |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Interim Contractor Support      |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| Installation of Hardware        |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |    | 336     | 2.0 |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |      |      |       |      |      |
| TC Equip -- 1164 Kits           |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | 1164 | 8.2  | 1164  | 8.2  |      |
| Total Installment               |                   |    |         |    | 336     | 2.0 |         |    |         |    |         |    |         |    |         |    | 1164 | 8.2  | 1500  | 10.2 |      |
| Total Procurement Cos           |                   |    |         |    |         | 8.0 |         |    |         |    |         |    |         |    |         |    |      | 40.8 |       |      | 50.8 |

| INDIVIDUAL MODIFICATION  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               | Date          |   |          |   |        |      |
|--|--|----------------|---|---|---|---------------|---|---|-----|-----------------------------------|-----|---|---|---------|-------------------------------|---------------|---|----------|---|--------|------|
|  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               | February 1998 |   |          |   |        |      |
| MODIFICATION TITLE: External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15] 1-97-05-4521  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1500, M1A2 = 0 TOTAL RQMT = 150   |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| DESCRIPTION / JUSTIFICATION:<br>This modification is the Upgrade of 1500ea External Auxiliary Power Units (EAPU's) procured / fielded in FY91 / 94. The upgrade replaces the 12 volt starter with a 24 volt starter, adds an improved voltage regulator and a NATO standard receptacle and remove the 24 volt battery. These changes will increase the reliability and durability of the existing EAPU's. Installation costs for this modification are included in the hardware cost and the prime hardware contractor will also install the modification. |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                |   |   |   |               |   |   |     | <u>PLANNED</u>                    |     |   |   |         | <u>ACCOMPLISHED</u>           |               |   |          |   |        |      |
| Preliminary Design Review  |  |                |   |   |   |               |   |   |     | - - - - - 3Q95                    |     |   |   |         | 3Q95                          |               |   |          |   |        |      |
| Critical Design Review   |  |                |   |   |   |               |   |   |     | - - - - - 2Q96                    |     |   |   |         | 2Q96                          |               |   |          |   |        |      |
| Contractor Test & Eval.  |  |                |   |   |   |               |   |   |     | - - - - - 4Q96                    |     |   |   |         | 4Q96                          |               |   |          |   |        |      |
| Initial Operational Test & Eval.   |  |                |   |   |   |               |   |   |     | - - - - - 2Q97                    |     |   |   |         | 2Q97                          |               |   |          |   |        |      |
| IPR Production Decision  |  |                |   |   |   |               |   |   |     | - - - - - 4Q97                    |     |   |   |         | 4Q97                          |               |   |          |   |        |      |
| T D P Available  |  |                |   |   |   |               |   |   |     | - - - - - 2Q98                    |     |   |   |         |                               |               |   |          |   |        |      |
| Installation Schedule:   |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| Pr Yr  |  | FY 1997        |   |   |   | FY 1998       |   |   |     | FY 1999                           |     |   |   | FY 2000 |                               |               |   | FY 2001  |   |        |      |
| Totals   |  | 1              | 2 | 3 | 4 | 1             | 2 | 3 | 4   | 1                                 | 2   | 3 | 4 | 1       | 2                             | 3             | 4 | 1        | 2 | 3      | 4    |
| <b>Inputs</b>  |  |                |   |   |   |               |   |   | 350 | 500                               | 650 |   |   |         |                               |               |   |          |   |        |      |
| <b>Outputs</b>   |  |                |   |   |   |               |   |   |     | 750                               | 750 |   |   |         |                               |               |   |          |   |        |      |
|  |  | FY 2002        |   |   |   | FY 2003       |   |   |     | FY 2004                           |     |   |   | FY 2005 |                               |               |   | To       |   | Totals |      |
|  |  | 1              | 2 | 3 | 4 | 1             | 2 | 3 | 4   | 1                                 | 2   | 3 | 4 | 1       | 2                             | 3             | 4 | Complete |   |        |      |
| <b>Inputs</b>  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        | 1500 |
| <b>Outputs</b>   |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        | 1500 |
| METHOD OF IMPLEMENTATION: Contractor Inst.   |  |                |   |   |   |               |   |   |     | ADMINISTRATIVE LEADTIME: 2 Months |     |   |   |         | PRODUCTION LEADTIME: 4 Months |               |   |          |   |        |      |
| Contract Dates:  |  | FY 1997 FEB 98 |   |   |   | FY 1998 N / A |   |   |     | FY 1999 N / A                     |     |   |   |         |                               |               |   |          |   |        |      |
| Delivery Date:   |  | FY 1997 JUN 98 |   |   |   | FY 1998 N / A |   |   |     | FY 1999 N / A                     |     |   |   |         |                               |               |   |          |   |        |      |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15] 1-97-05-4521

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---------------------------------|-------------------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                     |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                    |                   |    | 1500    |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 1500 |     |
| Installation Kits               |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits, Nonrecurring |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment                       |                   |    |         | 2.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 2.4 |
| Equipment, Nonrecurring         |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders       |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data                            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment              |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment               |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other                           |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support      |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware        |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |     | 1500    |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 1500 |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment               |                   |    |         |     | 1500    |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 1500 |     |
| Total Procurement Cos           |                   |    |         | 2.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 2.4 |

| INDIVIDUAL MODIFICATION   |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |     |         |                               |     |     |          |     |        |   |
|---|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|-----|---------|-------------------------------|-----|-----|----------|-----|--------|---|
| MODIFICATION TITLE: NBC Fire Warning (NBCFW) [MOD 16] 1-97-05-4524  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 432  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| DESCRIPTION / JUSTIFICATION:<br>The NBC Fire Warning (NBCFW) modification is an NBC (Nuclear, Chemical & Biological) system safety fix. It addresses the problem of NBC system fires caused by overheating. The NBCFW will provide for an audible warning alarm in the crew CVC helmet that sounds when the NBC sponson over-temperature light illuminates. This audible warning will allow tank crews to take the early action necessary to properly deal with an NBC filter fire. Only the M1A1 requires this modification. Earlier models do not have the NBC system on-board and M1A2's are being modified through a software change. |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |     |         | <u>ACCOMPLISHED</u>           |     |     |          |     |        |   |
| Preliminary Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 2Q96                    |   |               |     |         | 3Q96                          |     |     |          |     |        |   |
| Critical Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 3Q97                    |   |               |     |         | 3Q97                          |     |     |          |     |        |   |
| Initial Operational Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 1Q98                    |   |               |     |         | 1Q98                          |     |     |          |     |        |   |
| IPR Production Decision   |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |     |         |                               |     |     |          |     |        |   |
| T D P Available   |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |     |         |                               |     |     |          |     |        |   |
| Installation Schedule:  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| Pr Yr   |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |     | FY 2000 |                               |     |     | FY 2001  |     |        |   |
| Totals  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4   | 1       | 2                             | 3   | 4   | 1        | 2   | 3      | 4 |
| <b>Inputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               | 318 | 418     | 418                           | 418 | 418 | 418      | 315 |        |   |
| <b>Outputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |     | 418     | 418                           | 418 | 418 | 370      | 350 | 331    |   |
|   |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |     | FY 2005 |                               |     |     | To       |     | Totals |   |
|   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4   | 1       | 2                             | 3   | 4   | Complete |     |        |   |
| <b>Inputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     | 1604     |     | 4327   |   |
| <b>Outputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     | 1604     |     | 4327   |   |
| METHOD OF IMPLEMENTATION: Contractor Teams  |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 4 Months |   |               |     |         | PRODUCTION LEADTIME: 8 Months |     |     |          |     |        |   |
| Contract Dates:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 JAN 99                    |   |               |     |         |                               |     |     |          |     |        |   |
| Delivery Date:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 SEP 99                    |   |               |     |         |                               |     |     |          |     |        |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): NBC Fire Warning (NBCFW) [MOD 16] 1-97-05-4524

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC   |     | TOTAL |      |      |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|------|-----|-------|------|------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty  | \$  | Qty   | \$   |      |
| RDT&E                           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| PROCUREMENT                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Kit Quantity                    |                   |    |         |    |         |    | 1672    |     | 1051    |     |         |     |         |    |         |    | 1604 |     | 4327  |      |      |
| Installation Kits               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Equipment                       |                   |    |         |    |         |    |         | 4.1 | 2.6     |     |         |     |         |    |         |    |      | 4.5 |       | 11.2 |      |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Engineering Change Orders       |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Data                            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Training Equipment              |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Support Equipment               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Other                           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Interim Contractor Support      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Installation of Hardware        |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |     | 1672    | 0.7 |         |     |         |    |         |    |      |     | 1672  | 0.7  |      |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     | 1051    | 0.4 |         |    |         |    |      |     | 1051  | 0.4  |      |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| TC Equip -- 1604 Kits           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    | 1604 | 0.8 | 1604  | 0.8  |      |
| Total Installment               |                   |    |         |    |         |    |         |     | 1672    | 0.7 | 1051    | 0.4 |         |    |         |    | 1604 | 0.8 | 4327  | 1.9  |      |
| Total Procurement Cos           |                   |    |         |    |         |    |         | 4.1 |         | 3.3 |         | 0.4 |         |    |         |    |      | 5.3 |       |      | 13.1 |

| INDIVIDUAL MODIFICATION  |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |   |         |                               |      |      |          |      |        |       |
|--|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|---|---------|-------------------------------|------|------|----------|------|--------|-------|
| MODIFICATION TITLE: Hand-Held Fire Extinguisher (HHFE) [MOD 17] 1-97-05-4525   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 3003, M1A2 = 747 TOTAL RQMT = 375   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| DESCRIPTION / JUSTIFICATION:<br><p>Under the terms of the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals (ODS's), Halon 1301 used in the Abrams Tank for fire suppression must be eliminated. One current program does this in the engine compartment. This additional program will replace Halon Hand - Held Fire Extinguishers in the Abrams turret with new non - Halon extinguishers (The agent to be used is not yet known but testing to identify the best choice underway). The funding identified here - in will support the initial buy of Abrams Hand - held Fire Extinguishers. Note that installation funding is not identified. This program is expected to result in a one - for - one replacement in each Abrams tank which can easily be carried out by tank crews so deliveries will be directly to tank units and no formal installation program needed. Also note that four (4) extinguishers are required per tank so that 15000 will equip the 3750 tanks noted above while Reserve and N.G. tank requirements will be funded within their individual budgets.</p> |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |      |      |          |      |        |       |
| Preliminary Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 2Q97                    |   |               |   |         | 3Q97                          |      |      |          |      |        |       |
| Critical Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |   |         |                               |      |      |          |      |        |       |
| Initial Operational Test & Eval.   |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |   |         |                               |      |      |          |      |        |       |
| IPR Production Decision  |  |               |   |   |   |               |   |   |   | - - - - - 2Q99                    |   |               |   |         |                               |      |      |          |      |        |       |
| T D P Available  |  |               |   |   |   |               |   |   |   | - - - - - 3Q99                    |   |               |   |         |                               |      |      |          |      |        |       |
| Installation Schedule:   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| Pr Yr  |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |   | FY 2000 |                               |      |      | FY 2001  |      |        |       |
| Totals   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3    | 4    | 1        | 2    | 3      | 4     |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         | 3000                          | 3000 | 3000 | 3000     | 3000 |        |       |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
|  |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |   | FY 2005 |                               |      |      | To       |      | Totals |       |
|  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3    | 4    | Complete |      |        |       |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        | 15000 |
| METHOD OF IMPLEMENTATION: By Tank Crew   |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 2 Months |   |               |   |         | PRODUCTION LEADTIME: 4 Months |      |      |          |      |        |       |
| Contract Dates:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N/A                       |   |               |   |         |                               |      |      |          |      |        |       |
| Delivery Date:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N/A                       |   |               |   |         |                               |      |      |          |      |        |       |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Hand-Held Fire Extinguisher (HHFE) [MOD 17] 1-97-05-4525

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |       |     |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|-------|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$    |     |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Kit Quantity                    |                   |    |         |    |         |    |         |    | 15000   |     |         |    |         |    |         |    |     |    |       | 15000 |     |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Equipment                       |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    | 1.8     |     |         |    |         |    |         |    |     |    |       |       | 1.8 |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Data                            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Other                           |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Total Installment               |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    |         | 1.8 |         |    |         |    |         |    |     |    |       |       | 1.8 |

| INDIVIDUAL MODIFICATION   |  |                |   |   |   |                |   |   |   | Date                              |   | February 1998 |   |         |                               |   |   |          |   |        |   |
|---|--|----------------|---|---|---|----------------|---|---|---|-----------------------------------|---|---------------|---|---------|-------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: M1A2 Field Mods (A2FM) [MOD 18] 1-97-05-4534  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED:<br>M1A2   |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>M1A2 Field Modifications (A2FM) represents funding for a continuing series of upgrades for M1A2 unique LRU's (Line Replaceable Unit's) and / or SRU's (Shop Replaceable Unit's) . Examples of these include the Fire - Control Electronics Unit (FCEU), Commander's Integrated Display (CID) and various electronic "cards" (A6 , A9 , A10 , A12 & A13 for example) for which modification rather than replacement is both feasible and cost effective. There is no set quantity for this modification. These upgrades will be applied to every fielded M1A2 tank as they are proven and approved and the number of fielded M1A2's will continue to increase. This program is expected to "run" as long as M1A2 production continues. |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                |   |   |   |                |   |   |   | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |   |   |          |   |        |   |
| IPR Production Decision   |  |                |   |   |   |                |   |   |   | - - - - - 2Q96                    |   |               |   |         | 2Q96                          |   |   |          |   |        |   |
| T D P Available   |  |                |   |   |   |                |   |   |   | - - - - - 2Q96                    |   |               |   |         | 2Q96                          |   |   |          |   |        |   |
| Installation Schedule:  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997        |   |   |   | FY 1998        |   |   |   | FY 1999                           |   |               |   | FY 2000 |                               |   |   | FY 2001  |   |        |   |
| Totals  |  | 1              | 2 | 3 | 4 | 1              | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
|   |  | FY 2002        |   |   |   | FY 2003        |   |   |   | FY 2004                           |   |               |   | FY 2005 |                               |   |   | To       |   | Totals |   |
|   |  | 1              | 2 | 3 | 4 | 1              | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION: Contractor Team   |  |                |   |   |   |                |   |   |   | ADMINISTRATIVE LEADTIME: 3 Months |   |               |   |         | PRODUCTION LEADTIME: 6 Months |   |   |          |   |        |   |
| Contract Dates:   |  | FY 1997 FEB 97 |   |   |   | FY 1998 FEB 98 |   |   |   | FY 1999 FEB 99                    |   |               |   |         |                               |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 AUG 97 |   |   |   | FY 1998 AUG 98 |   |   |   | FY 1999 AUG 99                    |   |               |   |         |                               |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): M1A2 Field Mods (A2FM) [MOD 18] 1-97-05-4534

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |    | TOTAL |     |      |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|-----|------|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$ | Qty   | \$  |      |
| RDT&E                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| PROCUREMENT                     |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Kit Quantity                    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Installation Kits               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Installation Kits, Nonrecurring |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Equipment                       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Equipment, Nonrecurring         |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Engineering Change Orders       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Data                            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Training Equipment              |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Support Equipment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Other                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Interim Contractor Support      |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Installation of Hardware        |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 1.4  |
| FY 1997 Eqpt -- Kits            |                   |    |         | 1.4 |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 0.9  |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         | 0.9 |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 0.2  |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |     |         | 0.2 |         |     |         |     |         |     |         |     |     |    |       |     | 1.0  |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |     |         |     | 1.0     |     |         |     |         |     |         |     |     |    |       |     | 2.0  |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         | 2.0 |         |     |         |     |         |     |     |    |       |     | 1.0  |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     | 1.0     |     |         |     |         |     |     |    |       |     | 1.2  |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         | 1.2 |         |     |     |    |       |     | 6.0  |
| TC Equip-Kits                   |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 6.0  |
| Total Installment               |                   |    |         | 1.4 |         | 0.9 |         | 0.2 |         | 1.0 |         | 2.0 |         | 1.0 |         | 1.2 |     |    |       | 6.0 | 13.7 |
| Total Procurement Cos           |                   |    |         | 1.4 |         | 0.9 |         | 0.2 |         | 1.0 |         | 2.0 |         | 1.0 |         | 1.2 |     |    |       | 6.0 | 13.7 |

| INDIVIDUAL MODIFICATION  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   | Date          |   |          |        |   |   |
|--|--------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---------------|---|----------|--------|---|---|
|  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   | February 1998 |   |          |        |   |   |
| MODIFICATION TITLE: Matrix Support (MXSP) [MOD 19] N / A   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| MODELS OF SYSTEMS AFFECTED: WHOLE FLEET  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br>Matrix Support funds Government salaries in support of the entire Abrams Tank Modification program.      |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| Installation Schedule:   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
|  | Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |   |   |   | FY 2000 |   |               |   | FY 2001  |        |   |   |
|  | Totals | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3             | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| <b>Outputs</b>   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
|  |        | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |   |   |   | FY 2005 |   |               |   | To       | Totals |   |   |
|  |        | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3             | 4 | Complete |        |   |   |
| <b>Inputs</b>  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| <b>Outputs</b>   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| METHOD OF IMPLEMENTATION: PM / PEO Initiative      ADMINISTRATIVE LEADTIME: 0 Months      PRODUCTION LEADTIME: 0 Months                  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| Contract Dates:                      FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| Delivery Date:                        FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Matrix Support (MXSP) [MOD 19] N / A

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |     |  |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|-----|-------|-----|--|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$  |  |
| RDT&E                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| PROCUREMENT                     |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Kit Quantity                    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Installation Kits               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Installation Kits, Nonrecurring |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Equipment                       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Equipment, Nonrecurring         |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Engineering Change Orders       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Data                            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Training Equipment              |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Support                         |                   |    |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.6 |         | 0.6 |         | 0.6 |         | 0.6 |     | 3.4 |       | 7.3 |  |
| Other                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Interim Contractor Support      |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Installation of Hardware        |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| TC Equip-Kits                   |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Total Installment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Total Procurement Cos           |                   |    |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.6 |         | 0.6 |         | 0.6 |         | 0.6 |     | 3.4 |       | 7.3 |  |

| INDIVIDUAL MODIFICATION   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   | Date | February 1998 |        |   |   |
|---|--------|---------|----|----|----|---------|----|---|---|---------|---|---|---|---------|---|---|------|---------------|--------|---|---|
| MODIFICATION TITLE: <b>Prior Year Mod Installation (PYMI) [MOD 20] N / A</b>  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 355 , 1PM1 = 892 , M1A1 = 4351 , M1A2 = 1079 TOTAL RQMT = 684  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br>Continuing effort to install / apply modification kits procured during or before FY90. This effort was previously budgeted and executed within O&MA (P7M). Beginning in FY90 this effort transitioned from O&MA to PAA funding. |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:<br>There are no hardware milestones associated with this program. All funding detailed here-in is for the installation of Modification Kits procured during or before FY90.                                  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| Installation Schedule:  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
|   | Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |   |   | FY 1999 |   |   |   | FY 2000 |   |   |      | FY 2001       |        |   |   |
|   | Totals | 1       | 2  | 3  | 4  | 1       | 2  | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4    | 1             | 2      | 3 | 4 |
| <b>Inputs</b>   | 6847   |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| <b>Outputs</b>  | 6408   | 100     | 99 | 99 | 99 | 21      | 21 |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
|   |        | FY 2002 |    |    |    | FY 2003 |    |   |   | FY 2004 |   |   |   | FY 2005 |   |   |      | To            | Totals |   |   |
|   |        | 1       | 2  | 3  | 4  | 1       | 2  | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4    | Complete      |        |   |   |
| <b>Inputs</b>   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               | 6847   |   |   |
| <b>Outputs</b>  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               | 6847   |   |   |
| METHOD OF IMPLEMENTATION: N / A      ADMINISTRATIVE LEADTIME: N / A Months      PRODUCTION LEADTIME: N / A Months   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| Contract Dates:                      FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| Delivery Date:                        FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |



INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Prior Year Mod Installation (PYMI) [MOD 20] N / A

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |      |
|---------------------------------|-------------------|------|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|------|
|                                 | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |      |
| RDT&E                           |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| PROCUREMENT                     |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Kit Quantity                    | 6847              |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       | 6847 |      |
| Installation Kits               |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation Kits, Nonrecurring |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Equipment                       |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Equipment, Nonrecurring         |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Engineering Change Orders       |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Data                            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Training Equipment              |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Support Equipment               |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Other                           |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Interim Contractor Support      |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation of Hardware        |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    | 6408              | 65.0 | 397     | 4.9 | 42      | 0.5 |         |    |         |    |         |    |         |    |         |    |     |    |       | 6847 | 70.4 |
| FY 1997 Eqpt -- Kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2000 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2001 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2002 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2003 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| TC Equip-Kits                   |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Total Installment               | 6408              | 65.0 | 397     | 4.9 | 42      | 0.5 |         |    |         |    |         |    |         |    |         |    |     |    |       | 6847 | 70.4 |
| Total Procurement Cos           |                   | 65.0 |         | 4.9 |         | 0.5 |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 70.4 |

| INDIVIDUAL MODIFICATION  |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |    |         |                               |   |   |          |   |        |      |  |
|--|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|----|---------|-------------------------------|---|---|----------|---|--------|------|--|
| MODIFICATION TITLE: M1A1-D Integration Kit OSIP NO. 21   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |      |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 1535 , M1A2 = 0 TOTAL RQMT = 1535   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |      |  |
| DESCRIPTION / JUSTIFICATION:<br>This modification provides an integration kit for the Force XXI Battle Command Brigade and Below (FBCB2) into the M1A1 tank. Specifically, it complements the basic FBCB2 C2 integration kit by providing a far target designate capability for M1A1 tanks. The funding requested outfits the Army's first digital division. This modification includes integration of a pointing device into the tank and rework of the tank computer to provide range and elevation data necessary for far target designate. The installation costs for this modification are included the hardware costs. |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |      |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |    |         | <u>ACCOMPLISHED</u>           |   |   |          |   |        |      |  |
| Preliminary Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |    |         |                               |   |   |          |   |        |      |  |
| Contractor Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 3Q98                    |   |               |    |         |                               |   |   |          |   |        |      |  |
| Critical Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |    |         |                               |   |   |          |   |        |      |  |
| IPR Production Decision  |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |    |         |                               |   |   |          |   |        |      |  |
| T D P Available  |  |               |   |   |   |               |   |   |   | - - - - - 1Q99                    |   |               |    |         |                               |   |   |          |   |        |      |  |
| Installation Schedule:   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |      |  |
| Pr Yr  |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |    | FY 2000 |                               |   |   | FY 2001  |   |        |      |  |
| Totals   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4  | 1       | 2                             | 3 | 4 | 1        | 2 | 3      | 4    |  |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               | 25 | 100     |                               |   |   |          |   |        |      |  |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |    | 25      | 100                           |   |   |          |   |        |      |  |
|  |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |    | FY 2005 |                               |   |   | To       |   | Totals |      |  |
|  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4  | 1       | 2                             | 3 | 4 | Complete |   |        |      |  |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   | 1410   | 1535 |  |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   | 1410   | 1535 |  |
| METHOD OF IMPLEMENTATION: Contractor Team  |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 2 Months |   |               |    |         | PRODUCTION LEADTIME: 7 Months |   |   |          |   |        |      |  |
| Contract Dates:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 JAN 99                    |   |               |    |         |                               |   |   |          |   |        |      |  |
| Delivery Date:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 AUG 99                    |   |               |    |         |                               |   |   |          |   |        |      |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M1A1-D Integration Kit OSIP NO. 21

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |      | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC    |       | TOTAL |      |       |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|------|---------|----|---------|----|---------|----|---------|----|-------|-------|-------|------|-------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty   | \$    | Qty   | \$   |       |
| RDT&E                           |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| PROCUREMENT                     |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Kit Quantity                    |                   |    |         |    |         |    | 125     |      |         |    |         |    |         |    |         |    | 1410  |       |       | 1535 |       |
| Installation Kits               |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Equipment                       |                   |    |         |    |         |    |         | 20.3 |         |    |         |    |         |    |         |    |       | 271.4 |       |      | 291.7 |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Engineering Change Orders       |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Data                            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Training Equipment              |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Support Equipment               |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Other                           |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Interim Contractor Support      |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| Installation of Hardware        |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |      | 125     |    |         |    |         |    |         |    |       |       |       | 125  |       |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |       |       |       |      |       |
| TC Equip -- 1410 Kits           |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    | 1410  |       |       | 1410 |       |
| Total Installment               |                   |    |         |    |         |    |         |      | 125     |    |         |    |         |    |         |    | 1410  |       |       | 1535 |       |
| Total Procurement Cos           |                   |    |         |    |         |    |         | 20.3 |         |    |         |    |         |    |         |    | 271.4 |       |       |      | 291.7 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M16 RIFLE MODS (GZ2800)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 29.7        | 1.2     | 2.8     | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 49.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 29.7        | 1.2     | 2.8     | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 49.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 29.7        | 1.2     | 2.8     | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 49.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M16 family of rifles is a gas operated, magazine fed, selective fire and shoulder weapon. They are fed by 30 round aluminum magazines. The M16 Rifle Modifications Program provides a close combat optic, a modular weapon system suite, a top carry sling and a permanently affixed, rear aperture, back-up iron sight. The modular weapon allows the custom configuration of the M16 rifles with accessories and smaller items. i.e. optics, night sights, laser pointers, based on mission requirements.

**JUSTIFICATION:** The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons with accessories (i.e. day/night sights, laser pointers, ancillary weapons, etc.) based upon the mission. The top carry sling maintains the rifle in an upright position freeing the user's hands for other tasks. The permanent back-up, rear aperture, iron sight provides that capability in the event it becomes immediately necessary.

Exhibit P-40M Budget Item Justification Sheet

Date February 1998

Appropriation / Budget Activity/Serial No. PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles

P-1 Item Nomenclature M16 RIFLE MODS (GZ2800)

Program Elements for Code B Items

Code

Other Related Program Elements

| Description                      |                | Fiscal Years |         |         |         |         |         |         |         |     |       |
|----------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO.                         | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| Modular Weapon System (M16/M203) |                |              |         |         |         |         |         |         |         |     |       |
| TBD1                             | Operational    | 0.0          | 2.9     | 1.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 8.9   |
| Close Combat Optics (M16)        |                |              |         |         |         |         |         |         |         |     |       |
| TBD2                             | Operational    | 2.8          | 2.0     | 3.1     | 1.7     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 9.6   |
| Totals                           |                | 2.8          | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 18.6  |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |              |   |   |           |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|--------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: <b>Modular Weapon System (M16/M203) TBD1</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: Rifle, 5.56mm M16A2   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The modular weapon is a system of mounting rails/methods that allows the custom configuration of M16 Rifles with accessories and ancillary items such as optics, night sights, IR laser pointer, the grenade launcher, back-up sights, etc., based upon mission requirements in the field, without tools. |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |               |   |                      | ACCOMPLISHED |   |   |           |   |        |   |
| Developmental/Operational Tests   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 3Q95-2Q96    |   |   |           |   |        |   |
| Milestone III Production Decision   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
| Production Contract Award   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   | 3Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| First Unit Equipped   |  |                  |   |   |   |                          |   |   |   | 4Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |              |   |   | FY 2001   |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |              |   |   | To        |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months       |   |               |   | PRODUCTION LEADTIME: |              |   |   | 12 Months |   |        |   |
| Contract Dates:   |  | FY 1997 Aug 97   |   |   |   | FY 1998 May 98           |   |   |   | FY 1999 Nov 98 |   |               |   |                      |              |   |   |           |   |        |   |
| Delivery Date:  |  | FY 1997 Apr 98   |   |   |   | FY 1998 Oct 98           |   |   |   | FY 1999 Oct 99 |   |               |   |                      |              |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Modular Weapon System (M16/M203) TBD1

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |       |
|---------------------------------|----------------------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-------|
|                                 | Qty                  | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |       |
| RDT&E                           |                      | 1.158 |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      | 1.158 |
| PROCUREMENT                     |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Kit Quantity                    |                      |       | 3143    |       | 1612    |       | 4380    |       |         |    |         |    |         |    |         |    |     |    |       | 9135 |       |
| Installation Kits               |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits, Nonrecurring |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Equipment                       |                      |       |         | 2.404 |         | 1.487 |         | 4.038 |         |    |         |    |         |    |         |    |     |    |       |      | 7.929 |
| Equipment, Nonrecurring         |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Engineering Support             |                      |       |         | 0.207 |         | 0.025 |         | 0.215 |         |    |         |    |         |    |         |    |     |    |       |      | 0.447 |
| Testing                         |                      |       |         | 0.100 |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      | 0.100 |
| Integrated Logistical Support   |                      |       |         | 0.050 |         | 0.005 |         | 0.075 |         |    |         |    |         |    |         |    |     |    |       |      | 0.130 |
| Fielding                        |                      |       |         | 0.100 |         | 0.032 |         | 0.180 |         |    |         |    |         |    |         |    |     |    |       |      | 0.312 |
| Other                           |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Interim Contractor Support      |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation of Hardware        |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1996 & Prior Eqpt -- Kits    |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1997 Eqpt -- Kits            |                      |       |         |       | 3000    |       | 143     |       |         |    |         |    |         |    |         |    |     |    |       |      | 3143  |
| FY 1998 Eqpt -- Kits            |                      |       |         |       |         |       | 1357    |       | 255     |    |         |    |         |    |         |    |     |    |       |      | 1612  |
| FY 1999 Eqpt -- Kits            |                      |       |         |       |         |       |         |       | 4380    |    |         |    |         |    |         |    |     |    |       |      | 4380  |
| FY 2000 Eqpt -- kits            |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2001 Eqpt -- kits            |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2002 Eqpt -- kits            |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2003 Eqpt -- kits            |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| TC Equip-Kits                   |                      |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Total Installment               |                      |       |         |       | 3000    |       | 1500    |       | 4635    |    |         |    |         |    |         |    |     |    |       |      | 9135  |
| Total Procurement Cos           |                      |       |         | 2.9   |         | 1.5   |         | 4.5   |         |    |         |    |         |    |         |    |     |    |       |      | 8.9   |

| INDIVIDUAL MODIFICATION  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              | Date          |   |          |   |        |   |
|--|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---|---|----------------------|--------------|---------------|---|----------|---|--------|---|
|  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              | February 1998 |   |          |   |        |   |
| MODIFICATION TITLE: Close Combat Optics (M16) TBD2   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M16A2 Rifle, M68 Sight Reflex  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| The M68 Sight will be installed on the M16A2 Rifle   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| The Close Combat Optic allows the soldier to fire his weapon with both eyes open allowing greater awareness of events happening in close proximity to the soldier and improves hit probability in daylight, low light level, wet weather and other adverse conditions. |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
|  |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |   |   |                      | ACCOMPLISHED |               |   |          |   |        |   |
| Development/Operational Test   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      | 1/2Q96       |               |   |          |   |        |   |
| Type Classification (LRIP)   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      | 4Q96         |               |   |          |   |        |   |
| Production Contract Award  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      | 4Q96         |               |   |          |   |        |   |
| First Production Hardware Delivered  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      | 1Q97         |               |   |          |   |        |   |
| First Unit Equipped  |  |                  |   |   |   |                          |   |   |   | 2Q98           |   |   |   |                      |              |               |   |          |   |        |   |
| Installation Schedule:   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| Pr Yr  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |   |   | FY 2000              |              |               |   | FY 2001  |   |        |   |
| Totals   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3 | 4 | 1                    | 2            | 3             | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
|  |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |   |   | FY 2005              |              |               |   | To       |   | Totals |   |
|  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3 | 4 | 1                    | 2            | 3             | 4 | Complete |   |        |   |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |   |   |                      |              |               |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 1 Months       |   |   |   | PRODUCTION LEADTIME: |              |               |   | 6 Months |   |        |   |
| Contract Dates:  |  | FY 1997 Jul 97   |   |   |   | FY 1998 Jan 98           |   |   |   | FY 1999 Jan 99 |   |   |   |                      |              |               |   |          |   |        |   |
| Delivery Date:   |  | FY 1997 Jul 98   |   |   |   | FY 1998 Mar 99           |   |   |   | FY 1999 Jun 99 |   |   |   |                      |              |               |   |          |   |        |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Close Combat Optics (M16) TBD2

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |       |       |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$    |       |
| RDT&E                           |                   | 1.469 |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 1.469 |
| PROCUREMENT                     |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Kit Quantity                    | 12090             |       | 9361    |       | 14840   |       | 7520    |       |         |    |         |    |         |    |         |    |     |    |       | 43811 |       |
| Installation Kits               |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Equipment                       |                   | 2.353 |         | 1.795 |         | 2.845 |         | 1.504 |         |    |         |    |         |    |         |    |     |    |       |       | 8.497 |
| Eng Change Proposal             |                   |       |         | 0.026 |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 0.026 |
| Engineering Support             |                   | 0.337 |         | 0.185 |         | 0.185 |         | 0.139 |         |    |         |    |         |    |         |    |     |    |       |       | 0.846 |
| Testing                         |                   |       |         |       |         | 0.050 |         | 0.050 |         |    |         |    |         |    |         |    |     |    |       |       | 0.100 |
| Integrated Logistical Support   |                   | 0.030 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |         |    |     |    |       |       | 0.090 |
| Fielding                        |                   | 0.030 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |         |    |     |    |       |       | 0.090 |
| Other                           |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Interim Contractor Support      |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation of Hardware        |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       | 12090   |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 12090 |
| FY 1997 Eqpt -- Kits            |                   |       |         | 511   |         |       | 8850    |       |         |    |         |    |         |    |         |    |     |    |       |       | 9361  |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 2770    |       | 12070   |    |         |    |         |    |         |    |     |    |       |       | 14840 |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       |         |       | 7520    |    |         |    |         |    |         |    |     |    |       |       | 7520  |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Total Installment               |                   |       |         |       | 12601   |       | 11620   |       | 19590   |    |         |    |         |    |         |    |     |    |       |       | 43811 |
| Total Procurement Cos           |                   | 2.8   |         | 2.0   |         | 3.1   |         | 1.7   |         |    |         |    |         |    |         |    |     |    |       |       | 9.6   |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 172         | 34      | 100     | 120     | 120     | 120     | 120     | 105     | 90      | 88      |             | 1069       |
| Gross Cost       | 658.0       | 132.2   | 440.1   | 501.0   | 586.8   | 666.2   | 667.5   | 630.1   | 595.6   | 675.3   | 344.3       | 5897.1     |
| Less PY Adv Proc | 196.7       | 33.9    | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |             | 2024.4     |
| Plus CY Adv Proc | 230.6       | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |         |             | 2024.4     |
| Net Proc (P-1)   | 691.9       | 279.6   | 556.0   | 462.0   | 582.2   | 675.6   | 647.3   | 541.0   | 586.3   | 530.9   | 344.3       | 5897.1     |
| Initial Spares   | 1.6         | 2.7     | 17.1    | 9.2     | 13.7    | 9.8     | 9.9     | 10.8    | 16.9    | 16.0    | 38.0        | 145.7      |
| Total Proc Cost  | 693.5       | 282.3   | 573.1   | 471.2   | 595.8   | 685.4   | 657.2   | 551.8   | 603.2   | 546.9   | 382.3       | 6042.8     |
| Flyaway U/C      | 3.5         | 3.6     | 3.7     | 3.6     | 4.3     | 4.9     | 4.9     | 5.2     | 5.7     | 6.8     |             |            |
| Wpn Sys Proc U/C | 3.8         | 4.0     | 4.6     | 4.3     | 5.0     | 5.6     | 5.6     | 6.1     | 6.8     | 7.9     |             |            |

**DESCRIPTION:** The Abrams Tank Upgrade Program supports the Department of Army vision for the future. The Upgrade Program will reconfigure M1 Tanks to the M1A2 configuration making it a more survivable and lethal tank. This includes the Commander's Independent Thermal Viewer (CITV), Improved Commander's Weapon Station (ICWS), Position Navigation (POS/NAV) equipment, Radio Interface Unit (RIU), Core Architecture, D. U. Armor, 120mm Gun and Nuclear, Biological and Chemical (NBC) protection. In FY99 2nd Generation Forward Looking Infrared (FLIR) and vehicle core electronic upgrades will be cut into production.

**JUSTIFICATION:** The Upgrade Program will modernize the U.S. Army's armor force to enhance the combat effectiveness of the Abrams Tank Fleet and maintain the key elements of the tank industrial base.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis  |   | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |               |       | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |               |       | Weapon System Type: |               |       | Date:<br>February 1998 |               |       |          |
|--|---|--|---------------|-------|--|---------------|-------|---------------------|---------------|-------|------------------------|---------------|-------|----------|
| WTCV<br>Cost Elements                      |   | ID   | FY 96         |       |  | FY 97         |       |                     | FY 98         |       |                        | FY 99         |       |          |
|  |   | CD   | TotalCost     | Qty   | UnitCost   | TotalCost     | Qty   | UnitCost            | TotalCost     | Qty   | UnitCost               | TotalCost     | Qty   | UnitCost |
|  |   |  | \$000         | Each  | \$000  | \$000         | Each  | \$000               | \$000         | Each  | \$000                  | \$000         | Each  | \$000    |
| 1. Basic Vehicle                           | A |  | 215393        | 100   | 2154   | 293949        | 120   | 2450                | 301095        | 120   | 2509                   | 322228        | 120   | 2685     |
| 2. Armor                                   |   |  | 35742         | 80    | 447  | 27569         | 122   | 226                 | 39292         | 121   | 325                    | 40186         | 120   | 335      |
| 3. H/TEU                                   |   |  | 5850          | 200   | 29   | 7170          | 240   | 30                  | 6748          | 240   | 28                     |               |       |          |
| 4. Engine (DECU)                           |   |  | 2347          | 100   | 23   | 2655          | 120   | 22                  | 3072          | 120   | 26                     | 3114          | 120   | 26       |
| 5. Transmission                            |   |  | 22684         | 100   | 227  | 22534         | 120   | 188                 | 23482         | 120   | 196                    | 23799         | 120   | 198      |
| 6. Final Drive                             |   |  | 1379          | 200   | 7  | 1491          | 240   | 6                   | 1375          | 240   | 6                      | 1375          | 240   | 6        |
| 7. Fire Control                            |   |  | 32711         | 100   | 327  | 39485         | 120   | 329                 | 39347         | 120   | 328                    | 1805          | 120   | 15       |
| 8. Track                                   |   |  | 3327          | 15600 |  | 5678          | 18720 |                     | 5696          | 18720 |                        | 5696          | 18720 |          |
| 9. Roadwheels                              |   |  | 933           | 3200  |  | 1421          | 3840  |                     | 1421          | 3840  |                        | 1421          | 3840  |          |
| 10. Gun Mounts                             |   |  | 2142          | 50    | 43   | 2057          | 60    | 34                  | 2558          | 60    | 43                     | 3290          | 60    | 55       |
| 11. Gun                                    |   |  | 11672         | 100   | 117  | 11827         | 120   | 99                  | 12073         | 120   | 101                    | 15487         | 120   | 129      |
| 12. Driver's Night Viewer                  |   |  | 539           | 100   | 5  | 599           | 120   | 5                   | 617           | 120   | 5                      | 626           | 120   | 5        |
| 13. Basic Issue Items                      |   |  | 752           | 100   | 8  | 804           | 120   | 7                   | 769           | 120   | 6                      | 915           | 120   | 8        |
| 14. MILSTRIPS/RIK                          |   |  | 684           | 100   | 7  | 502           | 120   | 4                   | 663           | 120   | 6                      | 672           | 120   | 6        |
| 15. VIS                                    |   |  | 568           | 60    | 9  | 978           | 120   | 8                   | 1049          | 120   | 9                      | 1135          | 120   | 9        |
| 16. Special Tools & Test Sets              |   |  | 3376          |       |  | 753           |       |                     | 18400         |       |                        | 15600         |       |          |
| 17. Contract Engineering                   |   |  | 59087         |       |  | 62557         |       |                     | 65162         |       |                        | 72083         |       |          |
| 18. Project Mgt Administration             |   |  | 2401          |       |  | 1685          |       |                     | 1711          |       |                        | 1726          |       |          |
| 19. Matrix Support                         |   |  | 7913          |       |  | 491           |       |                     | 4324          |       |                        | 4361          |       |          |
| 20. Auxiliary Services                     |   |  | 2992          |       |  | 245           |       |                     | 2270          |       |                        | 3251          |       |          |
| 21. Engineering Support                    |   |  | 10901         |       |  | 2643          |       |                     | 6956          |       |                        | 7015          |       |          |
| 22. Quality Support                        |   |  | 1184          |       |  | 926           |       |                     | 1080          |       |                        | 1089          |       |          |
| 23. Testing                                |   |  | 4114          |       |  | 4172          |       |                     | 4237          |       |                        | 4273          |       |          |
| 24. Transportation (FDT)                   |   |  | 525           |       |  | 619           |       |                     | 629           |       |                        | 634           |       |          |
| 25. Total Package Fielding                 |   |  | 10884         |       |  | 8236          |       |                     | 8389          |       |                        | 8735          |       |          |
| 26. II Gen FLIR                            |   |  |               |       |  |               |       |                     | 9030          |       |                        | 96636         | 120   | 805      |
| 27. STS C2 FPTA 01                         |   |  |               |       |  |               |       |                     | 1038          |       |                        | 1017          |       |          |
| 28. Pre Mod Depot Maint                    |   |  |               |       |  |               |       |                     | 24316         | 120   | 203                    | 28026         | 120   | 234      |
| 29. Industrial Base/"Shut-Down             |   |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| 30. NonRecurring Cost (Pilots,GFE Seed,IPT |   |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| 31. Service Life Extension (SLE)           |   |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| <b>TOTAL</b>                               |   |  | <b>440100</b> |       |  | <b>501046</b> |       |                     | <b>586799</b> |       |                        | <b>666195</b> |       |          |
| <b>Gross P-1 End Cost</b>                  |   |  | <b>440100</b> | 100   | 4401   | <b>501046</b> | 120   | 4175                | <b>586799</b> | 120   | 4890                   | <b>666195</b> | 120   | 5552     |
| Less: Prior Year Adv Proc                  |   |  | 181306        |       |  | 297218        |       |                     | 258171        |       |                        | 253534        |       |          |
| <b>Net P-1 Full Funding Cost</b>           |   |  | <b>258794</b> |       |  | <b>203828</b> |       |                     | <b>328628</b> |       |                        | <b>412661</b> |       |          |
| Plus: P-1 CY Adv Proc                      |   |  | 297218        |       |  | 258171        |       |                     | 253534        |       |                        | 262942        |       |          |
| Other Non P-1 Costs                        |   |  | 19774         |       |  | 24955         |       |                     |               |       |                        |               |       |          |
| Initial Spares                             |   |  | 17057         |       |  | 9248          |       |                     | 13662         |       |                        | 9800          |       |          |
| Mods                                       |   |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| <b>TOTAL</b>                               |   |  | <b>592843</b> |       |  | <b>496202</b> |       |                     | <b>595824</b> |       |                        | <b>685403</b> |       |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles   |                            |                          |                 | Weapon System Type: |                        | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |                 |                  |                  |                |
|---|----------------------------|--------------------------|-----------------|---------------------|------------------------|--|-----------------|------------------|------------------|----------------|
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location    | Contract Method and Type | Location of PCO | Award Date          | Date of First Delivery | QTY Each   | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| <b>1. Basic Vehicle</b>   |                            |                          |                 |                     |                        |  |                 |                  |                  |                |
| FY 96   | GDLS/1                     | /2(1)                    | TACOM-Warren    | Jul-96              | Oct-96                 | 100  | 2154            | Yes              |                  | Jan-95         |
| FY 97   | GDLS/1                     | /2(2)                    | TACOM-Warren    | Dec-96              | Aug-97                 | 120  | 2450            | Yes              |                  | Jan-95         |
| FY 98   | GDLS/1                     | /2(3)                    | TACOM-Warren    | Feb-98              | Aug-98                 | 120  | 2509            | Yes              |                  | Jan-95         |
| FY 99   | GDLS/1                     | /2(4)                    | TACOM-Warren    | Feb-99              | Aug-99                 | 120  | 2685            | Yes              |                  | Jan-95         |
| <b>2. Armor/3</b>   |                            |                          |                 |                     |                        |  |                 |                  |                  |                |
| FY 96   | LITCO/5                    | SS/CPFF                  | DOE/4           | Mar-95              | Apr-96                 | 80   | 447             | NA               |                  | NA             |
| FY 97   | LITCO/5                    | SS/CPFF                  | DOE/4           | Mar-96              | Feb-97                 | 122  | 226             | NA               |                  | NA             |
| FY 98   | LITCO/5                    | SS/CPFF                  | DOE/4           | Feb-97              | Feb-98                 | 121  | 325             | NA               |                  | NA             |
| FY 99   | LITCO/5                    | SS/CPFF                  | DOE/4           | Jan-98              | Feb-99                 | 120  | 335             | NA               |                  | NA             |
| <b>3. H/TEU</b>   |                            |                          |                 |                     |                        |  |                 |                  |                  |                |
| FY 96   | GDLS/1                     | SS/FFP                   | TACOM-Warren/6  | Apr-95              | Apr-96                 | 200  | 29              | Yes              |                  |                |
| FY 97   | GDLS/1                     | C/FFP                    | TACOM-ACALA/7   | May-96              | Feb-97                 | 240  | 30              | Yes              |                  | Feb-96         |
| FY 98   | GDLS/1                     | OPTION                   | TACOM-ACALA/7   | Mar-97              | Feb-98                 | 240  | 28              | Yes              |                  | Feb-96         |
| <b>4. Engine (DECU)/10</b>  |                            |                          |                 |                     |                        |  |                 |                  |                  |                |
| FY 96   | AlliedSignal/8             | SS/FFP                   | TACOM-Warren    | Feb-95              | Apr-96                 | 100  | 23              | Yes              |                  | Aug-94         |
| FY 97   | AlliedSignal/8             | OPTION                   | TACOM-Warren    | Mar-96              | Feb-97                 | 120  | 22              | Yes              |                  | Aug-94         |
| FY 98   | AlliedSignal/8             | OPTION                   | TACOM-Warren    | Apr-97              | Feb-98                 | 120  | 26              | Yes              |                  | Aug-94         |
| FY 99   | AlliedSignal/8             | SS/FFP                   | TACOM-Warren    | Jan-98              | Feb-99                 | 120  | 26              | Yes              |                  | Sep-97         |
| <b>5. Transmission</b>  |                            |                          |                 |                     |                        |  |                 |                  |                  |                |
| FY 96   | Allison Transmission Div/9 | OPTION                   | TACOM-Warren    | Apr-95              | Apr-96                 | 100  | 227             | Yes              |                  | Oct-93         |
| FY 97   | Allison Transmission Div/9 | OPTION                   | TACOM-Warren    | Dec-95              | Feb-97                 | 120  | 188             | Yes              |                  | Oct-93         |
| FY 98   | Allison Transmission Div/9 | SS/FFP/CF                | TACOM-Warren    | Sep-97              | Feb-98                 | 120  | 196             | Yes              |                  | Dec-96         |
| FY 99   | Allison Transmission Div/9 | OPTION                   | TACOM-Warren    | Feb-98              | Feb-99                 | 120  | 198             | Yes              |                  | Dec-96         |
| <b>REMARKS:</b> /1. General Dynamics Land System, Warren, MI /7. Awarded to GDLS on a separate competitive contract<br>/2. SS/FFP/M5 /8. AlliedSignal/Control & Accessories, Tucson, AZ<br>/3. Armor production leads tank production /9. Allison Transmission Div, GM Corp, Indianapolis, IN<br>/4. Department of Energy /10. Awards are against a Navy BOA Contract therefore no RFP issued<br>/5. Lockheed Idaho Technologies Company, Idaho Falls, Idaho only letter with new requirements.<br>/6. Awarded to GDLS as part of the Long Lead Material Contract |                            |                          |                 |                     |                        |  |                 |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning  |                          |                          |                 |            |                        |          |                 |                  |                  | Date:  |
|--|--------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles  |                          |                          |                 |            |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:  |                          |                          |                 |            |                        |          |                 |                  |                  | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |
| WBS Cost Elements:   | Contractor and Location  | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date   |
| Fiscal Years   |                          |                          |                 |            |                        |          |                 |                  |                  |  |
| 6. Final Drive   |                          |                          |                 |            |                        |          |                 |                  |                  |  |
| FY 96  | TACOM NICP               | REQ                      |                 | Mar-95     | Apr-96                 | 200      | 7               | Yes              |                  | NA   |
| FY 97  | LOC Performance, Inc/1   | C/FFP                    | TACOM-Warren    | Nov-95     | Feb-97                 | 240      | 6               | Yes              |                  | Apr-95   |
| FY 98  | LOC Performance, Inc/1   | OPTION                   | TACOM-Warren    | Jan-97     | Feb-98                 | 240      | 6               | Yes              |                  | Apr-95   |
| FY 99  | LOC Performance, Inc/1   | OPTION                   | TACOM-Warren    | Apr-98     | Feb-99                 | 240      | 6               | Yes              |                  | Apr-95   |
| 7. Fire Control  |                          |                          |                 |            |                        |          |                 |                  |                  |  |
| FY 96  | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var        | Apr-96                 | 100      | 327             | Yes              |                  | Var  |
| FY 97  | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var        | Feb-97                 | 120      | 329             | Yes              |                  | Var  |
| FY 98  | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var        | Feb-98                 | 120      | 328             | Yes              |                  | Var  |
| FY 99  | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var        | Feb-99                 | 120      | 15              | Yes              |                  | Var  |
| 8. Track   |                          |                          |                 |            |                        |          |                 |                  |                  |  |
| FY 96  | Goodyear Tire & Rubber/3 | C/FFP                    | TACOM-Warren    | Feb-96     | Apr-96                 | 15600    |                 | Yes              |                  | Oct-95   |
| FY 97  | Goodyear Tire & Rubber/3 | OPTION                   | TACOM-Warren    | Mar-96     | Feb-97                 | 18720    |                 | Yes              |                  | Oct-95   |
| FY 98  | Goodyear Tire & Rubber/3 | OPTION                   | TACOM-Warren    | Nov-96     | Feb-98                 | 18720    |                 | Yes              |                  | Oct-95   |
| FY 99  | Goodyear Tire & Rubber/3 | SS/FFP                   | TACOM-Warren    | Apr-98     | Feb-99                 | 18720    |                 | Yes              |                  | Dec-97   |
| 9. Roadwheels  |                          |                          |                 |            |                        |          |                 |                  |                  |  |
| FY 96  | B&C Corp/4               | /5                       | TACOM-Warren    | Feb-95     | Apr-96                 | 3200     |                 | Yes              |                  | Jul-92   |
| FY 97  | B&C Corp/4               | /5                       | TACOM-Warren    | Mar-96     | Feb-97                 | 3840     |                 | Yes              |                  | Sep-95   |
| FY 98  | B&C Corp/4               | /5                       | TACOM-Warren    | Dec-96     | Feb-98                 | 3840     |                 | Yes              |                  | Sep-95   |
| FY 99  | B&C Corp/4               | /5                       | TACOM-Warren    | Apr-98     | Feb-99                 | 3840     |                 | Yes              |                  | Sep-95   |
| REMARKS: /1. Loc Performance, Inc, Plymouth, MI<br>/2. Hughes Aircraft, El Segundo, CA<br>/3. Goodyear Tire & Rubber Co., Akron, OH<br>/4. B&C Corp, Barberton, OH<br>/5. Requirement Contract/FFP |                          |                          |                 |            |                        |          |                 |                  |                  |  |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |  |                        |          |                 |                  |                  | Date:          |
|---|-------------------------|--------------------------|-----------------|--|------------------------|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles                   |                         |                          |                 |  |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |                         |                          |                 | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |                        |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 10. Gun Mounts/1  |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | RIA                     | WR                       |                 | Jun-95   | Apr-96                 | 50       | 43              | Yes              |                  | NA             |
| FY 97   | RIA                     | WR                       |                 | Mar-96   | Feb-97                 | 60       | 34              | Yes              |                  | NA             |
| FY 98   | RIA                     | WR                       |                 | Feb-97   | Feb-98                 | 60       | 43              | Yes              |                  | NA             |
| FY 99   | RIA                     | WR                       |                 | Apr-98   | Feb-99                 | 60       | 55              | Yes              |                  | NA             |
| 11. Gun   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | Waterviet               | WR                       |                 | Mar-95   | Apr-96                 | 100      | 117             | Yes              |                  | NA             |
| FY 97   | Waterviet               | WR                       |                 | Aug-96   | Feb-97                 | 120      | 99              | Yes              |                  | NA             |
| FY 98   | Waterviet               | WR                       |                 | Mar-97   | Feb-98                 | 120      | 101             | Yes              |                  | NA             |
| FY 99   | Waterviet               | WR                       |                 | Apr-98   | Feb-99                 | 120      | 129             | Yes              |                  | NA             |
| 12. Driver's Night Viewer   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | CECOM NICP              | REQ                      |                 | Jul-95   | Apr-96                 | 100      | 5               | Yes              |                  | NA             |
| FY 97   | CECOM NICP              | REQ                      |                 | Jun-96   | Feb-97                 | 120      | 5               | Yes              |                  | NA             |
| FY 98   | CECOM NICP              | REQ                      | CECOM           | Sep-97   | Feb-98                 | 120      | 5               | Yes              |                  | NA             |
| FY 99   | TBD                     | TBD                      | CECOM           | Jul-98   | Feb-99                 | 120      | 5               | Yes              |                  | NA             |
| 13. Basic Issue Items   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | TACOM-ACALA             | WR                       |                 | May-95   | Apr-96                 | 100      | 8               | Yes              |                  | NA             |
| FY 97   | TACOM-ACALA             | WR                       |                 | May-96   | Feb-97                 | 120      | 7               | Yes              |                  | NA             |
| FY 98   | TACOM-ACALA             | WR                       |                 | Feb-97   | Feb-98                 | 120      | 6               | Yes              |                  | NA             |
| FY 99   | TACOM-ACALA             | WR                       |                 | Apr-98   | Feb-99                 | 120      | 8               | Yes              |                  | NA             |
| REMARKS: /1. RIA, Rock Island Arsenal, Rock Island, IL produces 50% of gun mounts. The remainder are procured with the GDLS contract. |                         |                          |                 |  |                        |          |                 |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |  |                        |          |                 |                  |                  | Date:          |
|---|-------------------------|--------------------------|-----------------|--|------------------------|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles   |                         |                          |                 |  |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |                         |                          |                 | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |                        |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 14. MILSTRIPS/RIK   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | NA                      | REQ/WR                   |                 | Various  | Apr-96                 | 100      | 7               | Yes              |                  | NA             |
| FY 97   | NA                      | REQ/WR                   |                 | Various  | Feb-97                 | 120      | 4               | Yes              |                  | NA             |
| FY 98   | NA                      | REQ/WR                   |                 | Various  | Feb-98                 | 120      | 6               | Yes              |                  | NA             |
| FY 99   | NA                      | REQ/WR                   |                 | Various  | Feb-99                 | 120      | 6               | Yes              |                  | NA             |
| 15. VIS/1   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96/3   | Grumman/2               | OPTION                   | CECOM           | Dec-95   | Apr-96                 | 60       | 9               | Yes              |                  | Sep-91         |
| FY 97   | Grumman/2               | OPTION                   | CECOM           | May-96   | Feb-97                 | 120      | 8               | Yes              |                  | Sep-91         |
| FY 98   | Grumman/2               | OPTION                   | CECOM           | Apr-97   | Feb-98                 | 120      | 9               | Yes              |                  | Sep-91         |
| FY 99   | Grumman/2               | OPTION                   | CECOM           | Jun-98   | Feb-99                 | 120      | 9               | Yes              |                  | Sep-91         |
| 26. II Gen FLIR   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 99   | Various                 | SS/FFP                   | CECOM           | Jan-98   | Feb-99                 | 120      | 805             | Yes              |                  | Sep-96         |
| <b>REMARKS:</b> /1. VIS, Vehicular Intercommunication System<br>/2. Grumman Aerospace Corp, Bethpage, NY<br>/3. 40 VIS Components were previously procured in Phase I |                         |                          |                 |  |                        |          |                 |                  |                  |                |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |         |      |               |                       |                     | P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750) |     |     |     |     |     |     |     |     |     |     |     |                  |     | Date: February 1998 |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|---------------------------------------|-----|---------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|--|--|-----|--|--|--|
| COST ELEMENTS                         | MFR | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 97   |     |                     |     |     |     |     |     |     |     |     |     | LATER |  |  |     |  |  |  |
|                                       |     |         |      |               |                       |                     | Calendar Year 96                                       |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 97 |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       |     |         |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |  |  |     |  |  |  |
| 1. Basic Vehicle                      | 1   | 95 & Pr | A    | 206           | 95                    | 111                 | 10   | 9   | 8   | 10  | 10  | 10  | 10  | 10  | 9   | 6   | 10  | 9   |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY 96   | A    | 100           | 0                     | 100                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY 97   | A    | 120           | 0                     | 120                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY 98   | A    | 120           | 0                     | 120                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY 99   | A    | 120           | 0                     | 120                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY00    | A    | 120           | 0                     | 120                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY01    | A    | 105           | 0                     | 105                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY02    | A    | 90            | 0                     | 90                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | FY03    | A    | 88            | 0                     | 88                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
| 2. GOE - M1A1                         | 1   | 93& Pr  | FMS  | 100           | 0                     | 100                 | 7  | 8   | 6   | 9   | 8   | 9   | 8   | 9   | 4   | 4   | 10  | 9   | 9                |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | 93& Pr  | FMS  | 32            | 0                     | 32                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
|                                       | 1   | 93& Pr  | FMS  | 31            | 0                     | 31                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
| 3. KUWAIT - M1A2                      | 1   | 93& Pr  | FMS  | 218           | 161                   | 57                  | 13   | 12  | 9   | 12  | 11  |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |  |  |     |  |  |  |
| TOTAL                                 |     |         |      | 1450          | 256                   | 1194                | 30   | 29  | 23  | 31  | 29  | 19  | 18  | 19  | 13  | 10  | 20  | 18  | 21               | 18  | 14                  | 20  | 18  | 15  | 15  | 15  | 15  | 15  | 10  | 14  | 14    |  |  | 746 |  |  |  |

  

| MFR | NAME / LOCATION                | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |  |
|-----|--------------------------------|------------------|-------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---------|--|
|     |                                | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |  |
| 1   | LIMA ARMY TANK PLANT, LIMA, OH | 10               | 10    | 25   | 22          |            | INITIAL         | 0            | 3                | 14                 | 17      | LATP is the only facility in the United States capable of producing tanks.<br><br>LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |
|     |                                |                  |       |      |             |            | REORDER         | 0            | 3                | 14                 | 17      |  |
|     |                                |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                |                  |       |               |                       |                     | P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750) |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     | Date: February 1998 |     |     |       |     |     |     |  |
|---------------------------------------|--------------------------------|------------------|-------|---------------|-----------------------|---------------------|--|--------------|------------------|--------------------|---------|-----|--|-----|-----|-----|-----|-----|------------------|-----|-----|-----|-----|-----|---------------------|-----|-----|-------|-----|-----|-----|--|
| COST ELEMENTS                         | MFR                            | FY               | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98   |              |                  |                    |         |     |  |     |     |     |     |     | Fiscal Year 99   |     |     |     |     |     |                     |     |     | LATER |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | Calendar Year 98                                       |              |                  |                    |         |     |  |     |     |     |     |     | Calendar Year 99 |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | OCT  | NOV          | DEC              | JAN                | FEB     | MAR | APR  | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB | MAR | APR                 | MAY | JUN |       | JUL | AUG | SEP |  |
| 1. Basic Vehicle                      | 1                              | 95 & Pr          | A     | 206           | 206                   |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | FY 96            | A     | 100           | 100                   |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | FY 97            | A     | 120           | 20                    | 100                 | 11   | 9            | 8                | 11                 | 11      | 11  | 11   | 11  | 11  | 6   |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | FY 98            | A     | 120           | 0                     | 120                 |  |              |                  |                    | A       |     |  |     |     |     | 10  | 10  | 11               | 9   | 8   | 10  | 11  | 12  | 11                  | 11  | 11  | 6     |     |     |     |  |
|                                       | 1                              | FY 99            | A     | 120           | 0                     | 120                 |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       | 11  | 10  | 99  |  |
|                                       | 1                              | FY00             | A     | 120           | 0                     | 120                 |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     | 120 |     |  |
|                                       | 1                              | FY01             | A     | 105           | 0                     | 105                 |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     | 105 |     |  |
|                                       | 1                              | FY02             | A     | 90            | 0                     | 90                  |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     | 90  |     |  |
|                                       | 1                              | FY03             | A     | 88            | 0                     | 88                  |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     | 88  |     |  |
| 2. GOE - M1A1                         |                                |                  |       |               |                       |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | 93& Pr           | FMS   | 100           | 100                   |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | 93& Pr           | FMS   | 32            | 32                    |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | 93& Pr           | FMS   | 31            | 28                    | 3                   | 3  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
| 3. KUWAIT - M1A2                      |                                |                  |       |               |                       |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       | 1                              | 93& Pr           | FMS   | 218           | 218                   |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
| TOTAL                                 |                                |                  |       |               |                       |                     | 14   | 9            | 8                | 11                 | 11      | 11  | 11   | 11  | 11  | 6   | 10  | 10  | 11               | 9   | 8   | 10  | 11  | 12  | 11                  | 11  | 11  | 6     | 11  | 10  | 502 |  |
|                                       |                                |                  |       |               |                       |                     | OCT  | NOV          | DEC              | JAN                | FEB     | MAR | APR  | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB | MAR | APR                 | MAY | JUN | JUL   | AUG | SEP |     |  |
| MFR                                   | NAME / LOCATION                | PRODUCTION RATES |       |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME  |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                | MIN.             | 1-8-5 | MAX.          |                       |                     | Prior 1 Oct.   | After 1 Oct. |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
| 1                                     | LIMA ARMY TANK PLANT, LIMA, OH | 10               | 10    | 25            | 22                    |                     | INITIAL  |              | 0                | 3                  | 14      | 17  | LATP is the only facility in the United States capable of producing tanks.   |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | REORDER  |              | 0                | 3                  | 14      | 17  | LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |
|                                       |                                |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                  |     |     |     |     |     |                     |     |     |       |     |     |     |  |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                |         |       |               |                       |                     | P-1 Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |              |     |              |              |  |         |     |     |     |     |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |       |
|---------------------------------------|--------------------------------|---------|-------|---------------|-----------------------|---------------------|---|--------------|-----|--------------|--------------|--|---------|-----|-----|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| COST ELEMENTS                         | MFR                            | FY      | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00  |              |     |              |              |  |         |     |     |     |     |     | Fiscal Year 01   |                        |     |     |     |     |     |     |     |     |     |     | LATER |
|                                       |                                |         |       |               |                       |                     | Calendar Year 00  |              |     |              |              |  |         |     |     |     |     |     | Calendar Year 01 |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     | OCT   | NOV          | DEC | JAN          | FEB          | MAR  | APR     | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |
| 1. Basic Vehicle                      | 1                              | 95 & Pr | A     | 206           | 206                   |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 96   | A     | 100           | 100                   |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 97   | A     | 120           | 120                   |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 98   | A     | 120           | 120                   |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 99   | A     | 120           | 21                    | 99                  | 10  | 10           | 7   | 10           | 11           | 12   | 10      | 12  | 12  | 5   |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY00    | A     | 120           | 0                     | 120                 |   |              |     |              |              | A  |         |     |     |     | 11  | 9   | 11               | 9                      | 8   | 11  | 11  | 11  | 11  | 11  | 6   |     |     |     |       |
|                                       | 1                              | FY01    | A     | 105           | 0                     | 105                 |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     | A   |     |     |     |     | 9   | 9   | 87  |     |       |
|                                       | 1                              | FY02    | A     | 90            | 0                     | 90                  |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     | 90  |     |     |       |
|                                       | 1                              | FY03    | A     | 88            | 0                     | 88                  |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     | 88  |     |     |       |
| TOTAL                                 |                                |         |       |               |                       |                     | 10  | 10           | 7   | 10           | 11           | 12   | 10      | 12  | 12  | 5   | 11  | 9   | 11               | 9                      | 8   | 11  | 11  | 11  | 11  | 11  | 11  | 6   | 9   | 9   | 265   |
|                                       |                                |         |       |               |                       |                     | OCT   | NOV          | DEC | JAN          | FEB          | MAR  | APR     | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |
| MFR                                   | PRODUCTION RATES               |         |       |               | REACHED               | MFR                 | ADMIN LEAD TIME   |              |     |              | MFR          | TOTAL  | REMARKS |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | NAME / LOCATION                | MIN.    | 1-8-5 | MAX.          | D +                   | Number              | Prior 1 Oct.  | After 1 Oct. |     | After 1 Oct. | After 1 Oct. |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| 1                                     | LIMA ARMY TANK PLANT, LIMA, OH | 10      | 10    | 25            | 22                    |                     | 0   | 3            |     | 14           | 17           | LATP is the only facility in the United States capable of producing tanks.   |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     | 0   | 3            |     | 14           | 17           | LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |       |               |                       |                     |   |              |     |              |              |  |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                |         |       |               |                       |                     | P-1 Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |              |                  |                    |  |     |     |     |     |     |     |     | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|---------------------------------------|--------------------------------|---------|-------|---------------|-----------------------|---------------------|---|--------------|------------------|--------------------|--|-----|-----|-----|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|---|---|----|--|---|---|----|--|
| COST ELEMENTS                         | MFR                            | FY      | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 02  |              |                  |                    |  |     |     |     |     |     |     |     | Fiscal Year 03         |     |     |     |     |     |     |     |     |     |     |     | LATER |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       |                     | Calendar Year 02  |              |                  |                    |  |     |     |     |     |     |     |     | Calendar Year 03       |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       |                     | OCT   | NOV          | DEC              | JAN                | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                    | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |   |   |    |  |   |   |    |  |
| 1. Basic Vehicle                      | 1                              | 95 & Pr | A     | 206           | 206                   |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY 96   | A     | 100           | 100                   |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY 97   | A     | 120           | 120                   |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY 98   | A     | 120           | 120                   |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY 99   | A     | 120           | 120                   |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY00    | A     | 120           | 120                   |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY01    | A     | 105           | 18                    | 87                  | 9   | 8            | 8                | 9                  | 9  | 9   | 9   | 10  | 10  | 6   |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY02    | A     | 90            | 0                     | 90                  |   |              |                  |                    | A  |     |     |     |     |     |     | 8   | 7                      | 8   | 7   | 7   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 7   | 6     |   |   |    |  |   |   |    |  |
|                                       | 1                              | FY03    | A     | 88            | 0                     | 88                  |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     | A   |     |     |       |   |   |    |  | 8 | 7 | 73 |  |
| TOTAL                                 |                                |         |       | 1069          | 804                   | 265                 | 9   | 8            | 8                | 9                  | 9  | 9   | 9   | 10  | 10  | 6   | 8   | 7   | 8                      | 7   | 7   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 8   | 7   | 6     | 8 | 7 | 73 |  |   |   |    |  |
|                                       |                                |         |       |               |                       |                     | OCT   | NOV          | DEC              | JAN                | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                    | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |   |   |    |  |   |   |    |  |
| MFR                                   | PRODUCTION RATES               |         |       |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME   |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
| R                                     | NAME / LOCATION                | MIN.    | 1-8-5 | MAX.          |                       |                     | Prior 1 Oct.  | After 1 Oct. |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
| 1                                     | LIMA ARMY TANK PLANT, LIMA, OH | 10      | 10    | 25            | 22                    | INITIAL             | 0   | 3            | 14               | 17                 | LATP is the only facility in the United States capable of producing tanks.   |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | REORDER             | 0   | 3            | 14               | 17                 | LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | INITIAL             |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | REORDER             |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | INITIAL             |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | REORDER             |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | INITIAL             |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |
|                                       |                                |         |       |               |                       | REORDER             |   |              |                  |                    |  |     |     |     |     |     |     |     |                        |     |     |     |     |     |     |     |     |     |     |     |       |   |   |    |  |   |   |    |  |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 0.0        |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |         |             | 1793.8     |
| Net Proc (P-1)   | 0.0         | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |         | 0.0         | 1793.8     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   | 0.0     | 0.0         | 1793.8     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Advance procurement for long lead materials to support procurement for the Abrams Upgrade Program.

JUSTIFICATION: Without advance procurement funds, procurement of components, assemblies and raw materials to support procurement, long lead time would not be possible and would cause a break in production.

| <b>Advance Procurement Requirements Analysis-Funding (P-10A)</b>   |              |                      |        | First System Award Date:<br>Jul-96 |       | First System Completion Date:<br>Oct-96   |       | Date:<br>February 1998 |       |       |       |      |            |        |
|--|--------------|----------------------|--------|------------------------------------|-------|---|-------|------------------------|-------|-------|-------|------|------------|--------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |              |                      |        |                                    |       | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |       |                        |       |       |       |      |            |        |
| (\$ in Millions)   |              |                      |        |                                    |       |   |       |                        |       |       |       |      |            |        |
|  | PLT<br>(mos) | When<br>Rqd<br>(mos) | Pr Yrs | 1995                               | 1996  | 1997  | 1998  | 1999                   | 2000  | 2001  | 2002  | 2003 | To<br>Comp | Total  |
| End Item Quantity:   | *            |                      |        | 100                                | 120   | 120   | 120   | 120                    | 105   | 90    | 88    |      |            |        |
| 1. Basic Vehicle   | 18           | 6                    |        | 77.1                               | 193.0 | 142.8   | 100.2 | 116.9                  | 129.5 | 57.3  | 80.8  |      |            | 897.7  |
| 2. Armor   | 19           | 6                    |        | 20.0                               | 7.9   | 9.8   | 10.0  | 10.2                   | 10.6  | 10.8  | 2.2   |      |            | 81.7   |
| 3. H/TEU   | 13           | 6                    |        | 5.9                                | 7.2   | 6.7   |       |                        |       |       |       |      |            | 19.7   |
| 4. Engine (DECU)   | 20           | 6                    |        | 2.1                                | 2.5   | 3.1   | 3.1   | 3.1                    | 2.8   | 2.5   | 2.5   |      |            | 21.7   |
| 5. Transmission  | 19           | 6                    |        | 22.3                               | 22.4  | 23.4  | 23.6  | 24.0                   | 21.4  | 18.7  | 18.7  |      |            | 174.5  |
| 6. Final Drives  | 16           | 6                    |        | 1.4                                | 1.5   | 1.4   | 1.4   | 1.4                    | 1.3   | 1.1   | 1.1   |      |            | 10.5   |
| 7. Fire Control  | 16           | 6                    |        | 32.5                               | 39.3  | 38.8  | 1.8   | 1.8                    | 1.6   | 1.5   | 1.5   |      |            | 118.7  |
| 8. Track   | 19           | 6                    |        | 3.3                                | 5.7   | 5.7   | 5.7   | 5.8                    | 5.1   | 4.5   | 4.5   |      |            | 40.2   |
| 9. Roadwheels  | 16           | 6                    |        | 0.9                                | 1.4   | 1.4   | 1.4   | 1.4                    | 1.3   | 1.1   | 1.1   |      |            | 10.1   |
| 10. Gun Mounts   | 16           | 6                    |        | 2.1                                | 2.1   | 2.6   | 3.3   | 2.6                    | 2.4   | 2.1   | 2.1   |      |            | 19.2   |
| 11. Gun  | 16           | 6                    |        | 11.3                               | 11.4  | 10.6  | 15.4  | 12.4                   | 11.1  | 9.9   | 9.9   |      |            | 91.9   |
| 12. Driver's Night Viewer  | 13           | 6                    |        | 0.5                                | 0.6   | 0.5   | 0.6   | 0.6                    | 0.6   | 0.5   | 0.5   |      |            | 4.5    |
| 13. Basic Issue Items  | 16           | 6                    |        | 0.7                                | 0.8   | 0.7   | 0.9   | 0.8                    | 0.7   | 0.6   | 0.6   |      |            | 5.8    |
| 14. MILSTRIPS/RIK  | 16           | 6                    |        | 0.6                                | 0.5   | 0.7   | 0.7   | 0.7                    | 0.6   | 0.5   | 0.5   |      |            | 4.7    |
| 15. VIS  | 16           | 6                    |        | 0.6                                | 1.0   | 1.0   | 1.1   | 1.1                    | 1.0   | 0.9   | 0.9   |      |            | 7.7    |
| 26. II Gen FLIR  | 20           | 8                    |        |                                    |       | 9.0   | 84.3  | 80.1                   | 52.7  | 41.6  | 17.5  |      |            | 285.3  |
| 29. Industrial Base/"Shut Down"  |              |                      |        |                                    |       |   |       |                        |       |       |       |      |            |        |
| <b>Total Advance Procurement</b>   |              |                      |        | 181.3                              | 297.2 | 258.2   | 253.5 | 262.9                  | 242.7 | 153.6 | 144.3 |      |            | 1793.8 |

Description:

\* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.  
 ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.  
 PLT includes the 6 months requirement for components prior to tank delivery.

| Advance Procurement Requirements Analysis-Budget Justification (P-10B)   |              |                             |              |   |                           |                       | Date: February 1998 |                           |                       |
|--|--------------|-----------------------------|--------------|---|---------------------------|-----------------------|---------------------|---------------------------|-----------------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles   |              |                             |              | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |                           |                       |                     |                           |                       |
| (\$ in Millions)   |              |                             |              |   |                           |                       |                     |                           |                       |
|  | PLT<br>(mos) | Quantity<br>Per<br>Assembly | Unit<br>Cost | 1998  |                           |                       | 1999                |                           |                       |
|  |              |                             |              | Qty   | Contract<br>Forecast Date | Total<br>Cost Request | Qty                 | Contract<br>Forecast Date | Total<br>Cost Request |
| End Item   | *            |                             |              |   |                           |                       |                     |                           |                       |
| 1. Basic Vehicle   | 18           | 1                           | 0.8          | 120   | Various                   | 100.2                 | 120                 | Various                   | 116.9                 |
| 2. Armor   | 19           | 1                           | 0.1          | 121   | Jan 98                    | 10.0                  | 121                 | Jan 99                    | 10.2                  |
| 3. H/TEU   |              |                             |              |   |                           |                       |                     |                           |                       |
| 4. Engine (DECU)   | 20           | 1                           | 0.0          | 120   | Jan 98                    | 3.1                   | 120                 | Dec 98                    | 3.1                   |
| 5. Transmission  | 19           | 1                           | 0.2          | 120   | Feb 98                    | 23.6                  | 120                 | Jan 99                    | 24.0                  |
| 6. Final Drives  | 16           | 2                           | 0.0          | 240   | Apr 98                    | 1.4                   | 240                 | Apr 99                    | 1.4                   |
| 7. Fire Control  | 16           | 1                           | 0.0          | 120   | Various                   | 1.8                   | 120                 | Various                   | 1.8                   |
| 8. Track   | 19           | 156                         | 0.0          | 18720   | Apr 98                    | 5.7                   | 18720               | Nov 98                    | 5.8                   |
| 9. Roadwheels  | 16           | 32                          | 0.0          | 3840  | Apr 98                    | 1.4                   | 3840                | Apr 99                    | 1.4                   |
| 10. Gun Mounts   | 16           | 1                           | 0.1          | 60  | Apr 98                    | 3.3                   | 60                  | Apr 99                    | 2.6                   |
| 11. Gun  | 16           | 1                           | 0.1          | 120   | Apr 98                    | 15.4                  | 120                 | Apr 99                    | 12.4                  |
| 12. Driver's Night Viewer  | 13           | 1                           | 0.0          | 120   | Jul 98                    | 0.6                   | 120                 | Jul 99                    | 0.6                   |
| 13. Basic Issue Items  | 16           | 1                           | 0.0          | 120   | Apr 98                    | 0.9                   | 120                 | Apr 99                    | 0.8                   |
| 14. MILSTRIPS/RIK  | 16           | 1                           | 0.0          | 120   | Various                   | 0.7                   | 120                 | Various                   | 0.7                   |
| 15. VIS  | 16           | 1                           | 0.0          | 120   | Jun 98                    | 1.1                   | 120                 | Apr 99                    | 1.1                   |
| 26. II Gen FLIR  | 20           | 1                           | 0.7          | 120   | Jan 98                    | 84.3                  | 120                 | Dec 98                    | 80.1                  |
| <b>Total Advance Procurement</b>   |              |                             |              |   |                           | 253.5                 |                     |                           | 262.9                 |
| Description:<br>* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.<br>ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.<br>PLT includes the 6 months requirement for components prior to tank delivery. |              |                             |              |   |                           |                       |                     |                           |                       |

| Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)   |        |      |      |      |      |   |      |      |      |      | Date: February 1998 |       |
|--|--------|------|------|------|------|---|------|------|------|------|---------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |        |      |      |      |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |      |      |      |      |                     |       |
| (\$ in Millions)   |        |      |      |      |      |   |      |      |      |      |                     |       |
|  | Pr Yrs | 1995 | 1996 | 1997 | 1998 | 1999  | 2000 | 2001 | 2002 | 2003 | To Comp             | Total |
| <b>Proposal w/o AP</b>   |        |      |      |      |      |   |      |      |      |      |                     |       |
| Then Year Cost   | 658    | 132  | 440  | 501  | 587  | 666   | 668  | 630  | 596  | 675  | 344                 | 5897  |
| Constant Year Cost   | 692    | 136  | 447  | 502  | 578  | 651   | 642  | 595  | 552  | 613  | 303                 | 5711  |
| Present Value  | 762    | 146  | 466  | 509  | 571  | 625   | 599  | 540  | 488  | 527  | 251                 | 5482  |
| <b>AP Proposal</b>   |        |      |      |      |      |   |      |      |      |      |                     |       |
| Then Year Cost   | 692    | 280  | 556  | 462  | 582  | 676   | 647  | 541  | 586  | 531  | 344                 | 5897  |
| Constant Year Cost   | 753    | 289  | 564  | 463  | 574  | 660   | 622  | 511  | 543  | 482  | 303                 | 5764  |
| Present Value  | 871    | 310  | 588  | 469  | 566  | 634   | 581  | 464  | 480  | 414  | 251                 | 5626  |
| <b>AP Savings (Difference)</b>   |        |      |      |      |      |   |      |      |      |      |                     |       |
| Then Year Cost   | 34     | 148  | 116  | -39  | -5   | 9   | -20  | -89  | -9   | -144 |                     |       |
| Constant Year Cost   | 61     | 153  | 118  | -39  | -5   | 9   | -20  | -84  | -9   | -131 |                     | 53    |
| Present Value  | 109    | 164  | 123  | -40  | -5   | 9   | -18  | -76  | -8   | -113 |                     | 145   |
| Remarks:   |        |      |      |      |      |   |      |      |      |      |                     |       |



**Advance Procurement Requirements Analysis-Execution (P-10D)** Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles** P-1 Line Item Nomenclature / Weapon System: **ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)**

| (\$ in Millions)                 |              |       |                              |                            |                          |                            |       |                              |                            |                          |                            |       |                              |       |                              |
|----------------------------------|--------------|-------|------------------------------|----------------------------|--------------------------|----------------------------|-------|------------------------------|----------------------------|--------------------------|----------------------------|-------|------------------------------|-------|------------------------------|
|                                  | PLT<br>(mos) | 1996  |                              |                            |                          |                            | 1997  |                              |                            |                          |                            | 1998  |                              | 1999  |                              |
|                                  |              | Qty   | Contract<br>Forecast<br>Date | Actual<br>Contract<br>Date | Total<br>Cost<br>Request | Actual<br>Contract<br>Cost | Qty   | Contract<br>Forecast<br>Date | Actual<br>Contract<br>Date | Total<br>Cost<br>Request | Actual<br>Contract<br>Cost | Qty   | Contract<br>Forecast<br>Date | Qty   | Contract<br>Forecast<br>Date |
| End Item                         | *            |       |                              |                            |                          |                            |       |                              |                            |                          |                            |       |                              |       |                              |
| 1. Basic Vehicle                 | 18           | 120   | Various                      | Various                    | 193.0                    | 193                        | 120   | Various                      | Various                    | 142.8                    | 142.7                      | 120   | Various                      | 120   | Various                      |
| 2. Armor                         | 19           | 122   | Mar-96                       | Mar-96                     | 7.9                      | 8                          | 121   | Mar-97                       | Feb-97                     | 9.8                      | 9.8                        | 120   | Jan-98                       | 120   | Jan-99                       |
| 3. H/TEU                         |              | 240   | May-96                       | May-96                     | 7.2                      | 7                          | 240   | Mar-97                       | Mar-97                     | 6.7                      | 6.7                        |       |                              |       |                              |
| 4. Engine (DECU)                 | 20           | 120   | Mar-96                       | Mar-96                     | 2.5                      | 3                          | 120   | Mar-97                       | Apr-97                     | 3.1                      | 3.1                        | 120   | Jan-98                       | 120   | Dec-98                       |
| 5. Transmission                  | 19           | 120   | Dec-95                       | Various                    | 22.4                     | 22                         | 120   | Dec-96                       | Sep-97                     | 23.4                     | 23.4                       | 120   | Feb-98                       | 120   | Jan-98                       |
| 6. Final Drives                  | 16           | 240   | Mar-96                       | Nov-95                     | 1.5                      | 1                          | 240   | Mar-97                       | Jan-97                     | 1.4                      | 1.4                        | 240   | Apr-98                       | 240   | Apr-99                       |
| 7. Fire Control                  | 16           | 120   | Various                      | Various                    | 39.3                     | 39                         | 120   | Various                      | Various                    | 38.8                     | 38.8                       | 120   | Various                      | 120   | Various                      |
| 8. Track                         | 19           | 18720 | Mar-96                       | Mar-96                     | 5.7                      | 6                          | 18720 | Mar-97                       | Nov-96                     | 5.7                      | 5.7                        | 18720 | Apr-98                       | 18720 | Nov-98                       |
| 9. Roadwheels                    | 16           | 3840  | Mar-96                       | Mar-96                     | 1.4                      | 1                          | 3840  | Mar-97                       | Dec-96                     | 1.4                      | 1.4                        | 3840  | Apr-98                       | 3840  | Apr-99                       |
| 10. Gun Mounts                   | 16           | 60    | Mar-96                       | Mar-96                     | 2.1                      | 2                          | 60    | Mar-97                       | Feb-97                     | 2.6                      | 2.6                        | 60    | Apr-98                       | 60    | Apr-99                       |
| 11. Gun                          | 16           | 120   | Apr-96                       | Apr-96                     | 11.4                     | 11                         | 120   | Mar-97                       | Mar-97                     | 10.6                     | 10.6                       | 120   | Apr-98                       | 120   | Apr-99                       |
| 12. Driver's Night Viewer        | 13           | 120   | Apr-96                       | Jun-96                     | 0.6                      | 1                          | 120   | Jul-97                       | Sep-97                     | 0.5                      | 0.6                        | 120   | Jul-98                       | 120   | Jul-99                       |
| 13. Basic Issue Items            | 16           | 120   | Mar-96                       | May-96                     | 0.8                      | 1                          | 120   | May-97                       | Feb-97                     | 0.7                      | 0.8                        | 120   | Apr-98                       | 120   | Apr-99                       |
| 14. MILSTRIPS/RIK                | 16           | 120   | Various                      | Various                    | 0.5                      | 0                          | 120   | Various                      | Various                    | 0.7                      | 0.5                        | 120   | Various                      | 120   | Various                      |
| 15. VIS                          | 16           | 120   | Apr-96                       | May-96                     | 1.0                      | 1                          | 120   | Apr-97                       | Apr-97                     | 1.0                      | 1.0                        | 120   | Jun-98                       | 120   | Apr-99                       |
| 26. II Gen FLIR                  | 20           |       |                              |                            |                          |                            |       | Feb-97                       | Apr-97                     | 9.0                      | 9.0                        | 120   | Jan-98                       | 120   | Dec-98                       |
| <b>Total Advance Procurement</b> |              |       |                              |                            | 297.2                    | 297.2                      |       |                              |                            | 258.2                    | 258.2                      |       |                              |       |                              |

**Description:**  
 \* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.  
 ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |               |       |     |      |      |     |   |      |      |     |       |      | Date: February 1998 |                      |       |
|--|---------------|-------|-----|------|------|-----|---|------|------|-----|-------|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |               |       |     |      |      |     | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |      |      |     |       |      |                     |                      |       |
| (\$ in Millions)   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
|  | Total Program | FY 96 |     |      |      |     |   |      |      |     |       |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |               | 1995  |     |      | 1996 |     |   |      |      |     |       |      |                     |                      |       |
|  |               | Oct   | Nov | Dec  | Jan  | Feb | Mar   | Apr  | May  | Jun | Jul   | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 297.2         |       | 1.1 | 23.5 | 28.8 | 4.6 | 37.0  | 15.3 | 12.0 | 1.3 | 168.4 | 5.2  |                     | 297.2                | .0    |
| Actual   | 297.2         |       | 1.1 | 23.5 | 28.8 | 4.6 | 33.6  | 17.0 | 8.2  | .8  | .8    | 84.1 | 65.4                | 267.9                | 29.3  |
| Exp Plan   | 297.2         |       |     |      |      |     |   | .4   | .4   | .8  |       | 5.1  | 5.1                 | 11.8                 | 285.4 |
| Actual   | 297.2         |       |     |      |      |     |   | .4   | .4   | .8  |       | 4.5  | 7.0                 | 13.1                 | 284.1 |
| <b>FY 97</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| Actual   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| Exp Plan   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| Actual   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| <b>FY 98</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 253.5         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 253.5 |
| <b>FY 99</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 262.9         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 262.9 |
| Narrative:   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |      |      |   |      |      |      |      |      |      | Date: February 1998 |                      |       |
|--|------------------|-------|-----|------|------|---|------|------|------|------|------|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |      |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |      |      |      |      |      |      |                     |                      |       |
| (\$ in Millions)   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
|  | Starting Balance | FY 97 |     |      |      |   |      |      |      |      |      |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 1996  |     |      | 1997 |   |      |      |      |      |      |      |                     |                      |       |
|  |                  | Oct   | Nov | Dec  | Jan  | Feb   | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | .0               |       |     |      |      |   |      |      |      |      |      |      |                     |                      | .0    |
| Actual   | 29.3             |       |     | 1.0  | 11.2 | 11.9  |      | -1.9 | -7   | 7.8  | .0   | .0   | .0                  | 29.3                 | .0    |
| Exp Plan   | 285.4            | 9.4   | 9.4 | 9.4  | 9.4  | 9.4   | 9.4  | 9.4  | 9.4  | 9.5  | 9.5  | 9.4  | 9.4                 | 113.0                | 172.4 |
| Actual   | 284.1            | 5.0   | 8.3 | 2.9  | 3.0  | 15.1  | 6.5  | 24.5 | 12.9 | 13.3 | 19.0 | 14.2 | 6.1                 | 130.8                | 153.3 |
| <b>FY 97</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | 258.2            |       | 5.7 | 10.7 | 7.1  | 46.1  | 25.1 | 33.4 | 3.5  | 6.0  | 39.2 | 42.4 | 39.0                | 258.2                | .0    |
| Actual   | 258.2            |       | 5.7 | 10.7 | 33.1 | 41.0  | 20.4 | 12.5 | 2.6  |      | .2   | 69.0 | 61.3                | 256.5                | 1.7   |
| Exp Plan   | 258.2            |       |     |      | 2.0  | 2.0   | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  | 2.2                 | 18.2                 | 240.0 |
| Actual   | 258.2            |       |     |      |      | .2  | .7   |      | 1.2  | 2.8  | 5.4  | 1.1  | 3.1                 | 14.5                 | 243.7 |
| <b>FY 98</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | 253.5            |       |     |      |      |   |      |      |      |      |      |      |                     |                      | 253.5 |
| <b>FY 99</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | 262.9            |       |     |      |      |   |      |      |      |      |      |      |                     |                      | 262.9 |
| Narrative:   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |      |      |       |   |     |      |     |     |     |      | Date: February 1998 |                      |       |
|--|------------------|-------|------|------|-------|---|-----|------|-----|-----|-----|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |      |      |       | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |      |     |     |     |      |                     |                      |       |
| (\$ in Millions)   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
|  | Starting Balance | FY 98 |      |      |       |   |     |      |     |     |     |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 1997  |      |      | 1998  |   |     |      |     |     |     |      |                     |                      |       |
|  |                  | Oct   | Nov  | Dec  | Jan   | Feb   | Mar | Apr  | May | Jun | Jul | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |      |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Actual   | .0               |       | .0   | .0   |       |   |     |      |     |     |     |      |                     | .0                   | .0    |
| Exp Plan   | 172.4            | 8.6   | 8.6  | 8.6  | 8.6   | 8.7   | 8.7 | 8.7  | 8.7 | 8.7 | 8.7 | 8.7  | 8.7                 | 104.0                | 68.4  |
| Actual   | 159.4            | 11.7  | 29.2 | 13.1 |       |   |     |      |     |     |     |      |                     | 54.0                 | 105.4 |
| <b>FY 97</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |      |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Actual   | 1.7              | .0    | 1.4  |      |       |   |     |      |     |     |     |      |                     | 1.5                  | .2    |
| Exp Plan   | 240.0            | 8.0   | 8.0  | 8.0  | 8.0   | 8.0   | 8.0 | 8.0  | 8.0 | 8.0 | 8.0 | 8.0  | 8.0                 | 96.0                 | 144.0 |
| Actual   | 246.8            | 3.0   | 7.8  | 11.5 |       |   |     |      |     |     |     |      |                     | 22.2                 | 224.5 |
| <b>FY 98</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | 253.5            |       |      |      | 174.1 | 23.6  |     | 29.0 | 8.0 | 2.0 | 1.1 | 13.8 | 1.9                 | 253.5                | .0    |
| <b>FY 99</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | 262.9            |       |      |      |       |   |     |      |     |     |     |      |                     |                      | 262.9 |
| Narrative:   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |      |       |   |     |      |     |     |     |      | Date: February 1998 |                      |       |
|--|------------------|-------|-----|------|-------|---|-----|------|-----|-----|-----|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |      |       | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |      |     |     |     |      |                     |                      |       |
| (\$ in Millions)   |                  |       |     |      |       |   |     |      |     |     |     |      |                     |                      |       |
|  | Starting Balance | FY 99 |     |      |       |   |     |      |     |     |     |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 1998  |     |      | 1999  |   |     |      |     |     |     |      |                     |                      |       |
|  |                  | Oct   | Nov | Dec  | Jan   | Feb   | Mar | Apr  | May | Jun | Jul | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |     |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Actual   | .0               |       |     |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Exp Plan   | 68.4             | 2.8   | 2.9 | 2.8  | 2.8   | 2.8   | 2.9 | 2.8  | 2.9 | 2.9 | 2.9 | 2.9  | 2.9                 | 34.2                 | 34.2  |
| Actual   | 159.4            |       |     |      |       |   |     |      |     |     |     |      |                     |                      | 159.4 |
| <b>FY 97</b>   |                  |       |     |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |     |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Actual   | 63.0             |       |     |      |       |   |     |      |     |     |     |      |                     |                      | 63.0  |
| Exp Plan   | 144.0            | 7.3   | 7.4 | 7.3  | 7.3   | 7.3   | 7.3 | 7.3  | 7.4 | 7.3 | 7.4 | 7.4  | 7.4                 | 88.1                 | 55.9  |
| Actual   | 246.8            |       |     |      |       |   |     |      |     |     |     |      |                     |                      | 246.8 |
| <b>FY 98</b>   |                  |       |     |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |     |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| <b>FY 99</b>   |                  |       |     |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | 262.9            |       | 5.8 | 77.6 | 140.2 |   |     | 19.6 | 1.4 | 3.7 | .6  | 11.8 | 2.2                 | 262.9                | .0    |

Narrative:

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |     |      |     |   |     |     |     |     |     | Date: February 1998 |                     |                      |
|--|------------------|-------|-----|-----|------|-----|---|-----|-----|-----|-----|-----|---------------------|---------------------|----------------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |     |      |     | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |     |     |     |     |                     |                     |                      |
| (\$ in Millions)   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |
|  | Starting Balance | FY 00 |     |     |      |     |   |     |     |     |     |     |                     | Total Obl/Exp (Cum) | Ending Balance (Cum) |
|  |                  | 1999  |     |     | 2000 |     |   |     |     |     |     |     |                     |                     |                      |
|  |                  | Oct   | Nov | Dec | Jan  | Feb | Mar   | Apr | May | Jun | Jul | Aug | Sep                 |                     |                      |
| <b>FY 96</b>   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |
| Obl Plan   | .0               |       |     |     |      |     |   |     |     |     |     |     |                     |                     | .0                   |
| Actual   | .0               |       |     |     |      |     |   |     |     |     |     |     |                     |                     | .0                   |
| Exp Plan   | 34.2             | 1.4   | 1.4 | 1.4 | 1.4  | 1.4 | 1.4   | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5                 | 17.2                | 17.0                 |
| Actual   | 159.4            |       |     |     |      |     |   |     |     |     |     |     |                     |                     | 159.4                |
| <b>FY 97</b>   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |
| Obl Plan   | .0               |       |     |     |      |     |   |     |     |     |     |     |                     |                     | .0                   |
| Actual   | 63.0             |       |     |     |      |     |   |     |     |     |     |     |                     |                     | 63.0                 |
| Exp Plan   | 55.9             | 2.4   | 2.4 | 2.4 | 2.4  | 2.4 | 2.4   | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3                 | 28.2                | 27.7                 |
| Actual   | 246.8            |       |     |     |      |     |   |     |     |     |     |     |                     |                     | 246.8                |
| <b>FY 98</b>   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |
| Obl Plan   | .0               |       |     |     |      |     |   |     |     |     |     |     |                     |                     | .0                   |
| <b>FY 99</b>   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |
| Obl Plan   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |
| Narrative:   |                  |       |     |     |      |     |   |     |     |     |     |     |                     |                     |                      |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |     |      |   |     |     |     |     |     |     | Date: February 1998 |                      |       |
|--|------------------|-------|-----|-----|------|---|-----|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |     |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |     |     |     |     |     |                     |                      |       |
| (\$ in Millions)   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
|  | Starting Balance | FY 01 |     |     |      |   |     |     |     |     |     |     | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 2000  |     |     | 2001 |   |     |     |     |     |     |     |                     |                      |       |
|  |                  | Oct   | Nov | Dec | Jan  | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Exp Plan   | 17.0             | 1.3   | 1.3 | 1.3 | 1.3  | 1.3   | 1.3 | 1.3 | 1.3 | 1.3 | 1.8 | 1.8 | 1.7                 | 17.0                 | .0    |
| Actual   | 159.4            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 159.4 |
| <b>FY 97</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 63.0             |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 63.0  |
| Exp Plan   | 27.7             | 1.3   | 1.3 | 1.3 | 1.3  | 1.3   | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3                 | 15.6                 | 12.1  |
| Actual   | 246.8            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 246.8 |
| <b>FY 98</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| <b>FY 99</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Narrative:   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |     |      |   |     |     |     |     |     |     | Date: February 1998 |                      |       |
|--|------------------|-------|-----|-----|------|---|-----|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |     |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |     |     |     |     |     |                     |                      |       |
| (\$ in Millions)   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
|  | Starting Balance | FY 02 |     |     |      |   |     |     |     |     |     |     | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 2001  |     |     | 2002 |   |     |     |     |     |     |     |                     |                      |       |
|  |                  | Oct   | Nov | Dec | Jan  | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Exp Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 159.4            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 159.4 |
| <b>FY 97</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 63.0             |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 63.0  |
| Exp Plan   | 12.1             | 1.1   | 1.1 | 1.1 | 1.1  | 1.1   | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.0 |                     | 12.1                 | .0    |
| Actual   | 246.8            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 246.8 |
| <b>FY 98</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| <b>FY 99</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Narrative:   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: M1A2 TANK TRAINING DEVICES (GB1302)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 22.9        | 16.8    | 6.1     | 12.5    | 13.1    | 13.4    | 8.2     | 10.8    | 12.1    | 12.4    | 27.0        | 155.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 22.9        | 16.8    | 6.1     | 12.5    | 13.1    | 13.4    | 8.2     | 10.8    | 12.1    | 12.4    | 27.0        | 155.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 22.9        | 16.8    | 6.1     | 12.5    | 13.1    | 13.4    | 8.2     | 10.8    | 12.1    | 12.4    | 27.0        | 155.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: The family of M1A2 Training Aids, Devices, Simulators and Simulations (TADSS) will replicate actual tank performance without incurring the much higher costs of operating the tank itself.

- Advance Gunnery Training System (AGTS) - These are precision gunnery trainers which provide realistic commander and gunner training under varying scenarios.
- Maintenance Trainers - These systems provide training in essential unit and direct support/general support tasks. There are four different trainers: M1A2 Hands-on-Trainer (HOT); Hull Electrical Diagnostic/Troubleshooting (D/T) Trainer; Turret/Fire Control D/T Trainer; and Direct Support Electrical System Test Set Line Replaceable Unit (DSESTS LRU) simulators. The students (approximately 600/yr) will learn about the sub-systems and procedures for troubleshooting and fault isolating the tank system. The intended sites are Ft. Knox and Aberdeen Proving Grounds.
- SEP Integration - This funding provides for integration of SEP improvements into the various training devices impacted by those changes on the tank.

JUSTIFICATION: Fielding of the M1A2 Main Battle Tank requires concurrent fielding of a training support package. It is not cost effective to provide effective, realistic training on the M1A2 tanks through the operational use of the vehicle. Realistic training on a family of training devices simply makes better economic sense.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |            | P-1 Line Item Nomenclature:<br>M1A2 TANK TRAINING DEVICES (GB1302) |              |            | Weapon System Type: |              |            | Date:<br>February 1998 |              |            |             |
|---|--|--|--------------|------------|--|--------------|------------|---------------------|--------------|------------|------------------------|--------------|------------|-------------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |            |  | <b>FY 97</b> |            |                     | <b>FY 98</b> |            |                        | <b>FY 99</b> |            |             |
|   |  | CD   | TotalCost    | Qty        | UnitCost   | TotalCost    | Qty        | UnitCost            | TotalCost    | Qty        | UnitCost               | TotalCost    | Qty        | UnitCost    |
|   |  |  | \$000        | Each       | \$000  | \$000        | Each       | \$000               | \$000        | Each       | \$000                  | \$000        | Each       | \$000       |
| Advance Gunnery Training System (AGTS)            |  | A  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 1) Production                                     |  |  | 1819         |            |  | 5684         |            |                     | 7700         |            |                        | 8800         |            |             |
| 2) Government Support                             |  |  | 206          |            |  | 550          |            |                     | 550          |            |                        | 400          |            |             |
| 3) First Article Test                             |  |  | 268          |            |  |              |            |                     |              |            |                        | 300          |            |             |
| 4) Non Recurring Cost                             |  |  | 2907         |            |  | 1171         |            |                     | 1768         |            |                        |              |            |             |
| <b>SUBTOTAL</b>                                   |  |  | <b>5200</b>  | <b>2</b>   | <b>2600</b>  | <b>7405</b>  | <b>6</b>   | <b>1234</b>         | <b>10018</b> | <b>7</b>   | <b>1431</b>            | <b>9500</b>  | <b>8</b>   | <b>1188</b> |
| M1A2 Maintenance Trainers                         |  | A  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 1) Production                                     |  |  | 750          |            |  |              |            |                     |              |            |                        |              |            |             |
| 2) Government Support                             |  |  | 183          |            |  |              |            |                     |              |            |                        |              |            |             |
| 3) First Article Test                             |  |  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| <b>SUBTOTAL</b>                                   |  |  | <b>933</b>   | <b>VAR</b> | <b>VAR</b>   |              |            |                     |              |            |                        |              |            |             |
| M1A2 Non System Integration Kits                  |  | A  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 1) Production                                     |  |  |              |            |  | 1779         |            |                     |              |            |                        |              |            |             |
| 2) Government Support                             |  |  |              |            |  | 162          |            |                     |              |            |                        |              |            |             |
| 3) First Article Test                             |  |  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| <b>SUBTOTAL</b>                                   |  |  |              |            |  | <b>1941</b>  | <b>VAR</b> | <b>VAR</b>          |              |            |                        |              |            |             |
| M1A2 Software Upgrades                            |  | A  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 1) Production                                     |  |  |              |            |  |              |            |                     | 100          |            |                        | 100          |            |             |
| 2) Government Support                             |  |  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 3) First Article Test                             |  |  |              |            |  | 100          |            |                     |              |            |                        |              |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |  | 380          |            |                     | 825          |            |                        | 825          |            |             |
| <b>SUBTOTAL</b>                                   |  |  |              |            |  | <b>480</b>   | <b>VAR</b> | <b>VAR</b>          | <b>925</b>   | <b>VAR</b> | <b>VAR</b>             | <b>925</b>   | <b>VAR</b> | <b>VAR</b>  |
| SEP Integration                                   |  | A  |              |            |  |              |            |                     |              |            |                        |              |            |             |
| 1) Production                                     |  |  |              |            |  |              |            |                     | 633          |            |                        | 2836         |            |             |
| 2) Government Support                             |  |  |              |            |  |              |            |                     | 50           |            |                        | 50           |            |             |
| 3) First Article Test                             |  |  |              |            |  |              |            |                     |              |            |                        | 100          |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |  | 2720         |            |                     | 1450         |            |                        |              |            |             |
| <b>SUBTOTAL</b>                                   |  |  |              |            |  | <b>2720</b>  | <b>VAR</b> | <b>VAR</b>          | <b>2133</b>  | <b>VAR</b> | <b>VAR</b>             | <b>2986</b>  | <b>VAR</b> | <b>VAR</b>  |
| <b>TOTAL</b>                                      |  |  | <b>6133</b>  |            |  | <b>12546</b> |            |                     | <b>13076</b> |            |                        | <b>13411</b> |            |             |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked**  
 Weapon System Type: **Combat Vehicles**  
 P-1 Line Item Nomenclature: **M1A2 TANK TRAINING DEVICES (GB1302)**

| WBS Cost Elements:<br>Fiscal Years            | Contractor and Location      | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|---|------------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>Advance Gunnery Training System (AGTS)</b> |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY96  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Feb-96     | Jul-97                 | 2        | 2600            | Yes              | No               | N/A            |
| FY97  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Feb-97     | Apr-98                 | 6        | 1234            | Yes              | No               | N/A            |
| FY98  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Mar-98     | Mar-00                 | 7        | 1431            |                  |                  | N/A            |
| FY99  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Jan-99     | Mar-01                 | 8        | 1188            |                  |                  | N/A            |
| <b>M1A2 Maintenance Trainers</b>              |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY96  | Contraves, Tampa, FL         | C-FFP                    | STRICOM         | Mar-96     | Mar-98                 | VAR      | VAR             | Yes              | No               | N/A            |
| <b>M1A2 Non System Integration Kits 1/</b>    |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY97  | Various                      | C-FFP                    | STRICOM         | Mar-97     | Jun-98                 | VAR      | VAR             | No               | No               | N/A            |
| <b>M1A2 Software Upgrades 2/</b>              |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY97  | Various                      | C-FFP                    | STRICOM         | Dec-96     | Dec-97                 | VAR      | VAR             | No               | No               | N/A            |
| FY98  | Various                      | C-FFP                    | STRICOM         | Dec-97     | Dec-98                 | VAR      | VAR             | No               | No               | N/A            |
| FY99  | Various                      | C-FFP                    | STRICOM         | Dec-98     | Dec-99                 | VAR      | VAR             | No               | No               | N/A            |
| <b>SEP Integration</b>                        |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY97  | Lockheed Martin, Orlando, FL | C-PIF                    | STRICOM         | Jun-97     | NA                     | VAR      | VAR             | No               | No               | N/A            |
| FY98  | Lockheed Martin, Orlando, FL | C-PIF                    | STRICOM         | Feb-98     | NA                     | VAR      | VAR             | No               | No               | N/A            |
| FY99  | Lockheed Martin, Orlando, FL | C-PIF                    | STRICOM         | Feb-99     | Mar-00                 | VAR      | VAR             | No               | No               | N/A            |

**REMARKS:** 1/ M1A2 Non-System Integration Kits provide system unique kits allowing the installation of Non-System Training Devices, such as Thru Sight Video (TSV), Tank Weapon Gun Simulation System (TWGSS), Precision Range Integrated Maneuver Exercise (PRIME), and Multiple Integrated Laser Engagement System (MILES) onto the M1A2 tank.

2/ M1A2 trainer software upgrades update M1A2 training devices to keep pace with changes in the M1A2 tank.



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                     |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|
| <b>FY 98 / 99 BUDGET PRODUCTION SCHEDULE</b> |  |  |  |  |  | P-1 Item Nomenclature: M1A2 TANK TRAINING DEVICES (GB1302) |  |  |  |  |  |  |  |  |  |  |  |  |  | Date: February 1998 |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|

| COST ELEMENTS                       | MFR | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 99   |     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|-------------------------------------|-----|---------|------|---------------|-----------------------|---------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
|                                     |     |         |      |               |                       |                     | Calendar Year 98 |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 99 |     |     |     |     |     |     |     |     |     |     |     |           |
|                                     |     |         |      |               |                       |                     | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| Advance Gunnery Training System (AG | 1   | 95 & Pr | A    | 6             | 6                     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                     |     | FY96    | A    | 2             | 2                     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                     |     | FY97    | A    | 6             | 0                     | 6                   |                  |     |     |     |     | 2   |     |     |     | 4   |     |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                     |     | FY98    | A    | 7             | 0                     | 7                   |                  |     |     |     |     | A   |     |     |     |     |     |     |                  |     |     |     |     |     |     |     | 7   |     |     |     |           |
|                                     |     | FY99    | A    | 8             | 0                     | 8                   |                  |     |     |     |     |     |     |     |     |     | A   |     |                  |     |     |     |     |     |     |     | 8   |     |     |     |           |
|                                     |     |         |      |               |                       |                     |                  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                     |     |         |      | 29            | 8                     | 21                  |                  |     |     |     |     |     | 2   |     |     |     | 4   |     |                  |     |     |     |     |     |     |     | 15  |     |     |     |           |

| MFR | NAME / LOCATION              | PRODUCTION RATES |       |      | REACHED D+ | MFR Number | INITIAL | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|------------------------------|------------------|-------|------|------------|------------|---------|-----------------|--------------|------------------|--------------------|---------|
|     |                              | MIN.             | 1-8-5 | MAX. |            |            |         | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | Lockheed Martin, Orlando, FL | N/A              | N/A   | N/A  | N/A        | 1          | INITIAL | 6               | 2            | 18               | 20                 |         |
|     |                              |                  |       |      |            |            | REORDER | 2               | 2            | 6                | 8                  |         |
|     |                              |                  |       |      |            |            | INITIAL |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | REORDER |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | INITIAL |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | REORDER |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | INITIAL |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | REORDER |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | INITIAL |                 |              |                  |                    |         |
|     |                              |                  |       |      |            |            | REORDER |                 |              |                  |                    |         |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M16 RIFLE (G14900)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 490368      | 20473   | 31826   | 15583   | 11297   | 16067   | 22848   | 7472    |         |         |             | 615934     |
| Gross Cost       | 224.5       | 9.8     | 13.1    | 6.5     | 5.0     | 6.8     | 9.8     | 4.9     | 0.0     | 0.0     | 0.0         | 280.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 224.5       | 9.8     | 13.1    | 6.5     | 5.0     | 6.8     | 9.8     | 4.9     | 0.0     | 0.0     | 0.0         | 280.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 224.5       | 9.8     | 13.1    | 6.5     | 5.0     | 6.8     | 9.8     | 4.9     | 0.0     | 0.0     | 0.0         | 280.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M16A2 Rifle, 5.56mm, is a gas operated, air cooled, magazine fed, selective rate shoulder fired weapon. It is fed by a 30 round aluminum magazine and is designed for use as the primary infantry weapon. The M16A2 is an improved version the M16A1 Rifle. Improvements include: strengthened plastic handguard, rifle stock and pistol grip to increase durability of the weapon, interchangeable handguard halves, muzzle brake compensator which reduces the raise or jump of the muzzle when fired, a burst control device limiting the automatic fire to a maximum of three rounds per trigger pull, and adjustable rear sight and square front sight post for a more distinct sight picture, a brass deflector to prevent hot brass cartridge casings from hitting left-handed shooters, and a stronger barrel reinforced with additional metal and a change in the twist ratio of the bore to accommodate NATO standard 5.56mm ammunition. The maximum effective range of the M16A2 has increased from 460 to 550 meters.

**JUSTIFICATION:** The M16A2 Rifle Program for FY99 provides additional rifles for fielding against the Force Modernization requirement for pure fleeting the field with the M16A2 Rifle. Without additional M16A2 Rifles, a logistic problem associated with different ammunition requirements for the M16A1 vs M16A2 is perpetuated. Funding also supports the M16 Rifle Industrial Base.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |       |          | P-1 Line Item Nomenclature:<br>M16 RIFLE (G14900) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----------|---|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>WTCV<br/>Cost Elements</b>                     | ID<br>CD | <b>FY 96</b>  |       |          | <b>FY 97</b>                                      |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
|   |          | TotalCost   | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |          | \$000   | Each  | \$       | \$000   | Each  | \$       | \$000               | Each  | \$       | \$000                  | Each  | \$       |
| 1. Rifle (Includes Slings and Magazines)          | A        | 12667   | 31813 | 398      | 4109  | 10320 | 398      | 4499                | 11297 | 398      | 6397                   | 16067 | 398      |
| Refurbished Rifles                                |          | 3   | 13    | 231      | 1480  | 3715  | 398      |                     |       |          |                        |       |          |
| 2. Engineering Support<br>- In House Support      |          |   |       |          |   |       |          | 266                 |       |          | 256                    |       |          |
| 3. Engineering Change Proposals                   |          | 8   |       |          | 60  |       |          | 63                  |       |          | 92                     |       |          |
| 4. Quality Assurance (ARDEC)                      |          | 47  |       |          | 45  |       |          | 63                  |       |          | 54                     |       |          |
| 5. Integrated Logistics Support                   |          | 65  |       |          | 65  |       |          | 74                  |       |          |                        |       |          |
| 6. Testing (TECOM)                                |          | 131   |       |          | 130   |       |          |                     |       |          |                        |       |          |
| 7. Fielding                                       |          | 133   |       |          | 18  |       |          | 19                  |       |          | 30                     |       |          |
| <b>TOTAL</b>                                      |          | <b>13054</b>  |       |          | <b>6523</b>                                       |       |          | <b>4984</b>         |       |          | <b>6829</b>            |       |          |



**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 Weapon System Type: M16 RIFLE (G14900)  
 P-1 Line Item Nomenclature: M16 RIFLE (G14900)

| WBS Cost Elements:<br>Fiscal Years                | Contractor and Location        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|---|--------------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| 1. Rifle (Includes Slings and Magazines)<br>FY 96 | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(1)         | ACALA           | Aug-96     | Jan-97                 | 31813    | 398          | Yes              | No               |                |
|   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(1)         | ACALA           | Aug-96     | Jan-97                 | 13       | 231          | Yes              | No               |                |
| FY 97   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(2)         | ACALA           | Dec-96     | Jan-99                 | 10320    | 398          | Yes              | No               |                |
|   | FN Mfg. Co., Inc. Columbia, SC | Option                   | ACALA           | Dec-96     | Aug-99                 | 1548     | 398          | Yes              | No               |                |
|   | FN Mfg. Co., Inc. Columbia, SC | Option                   | ACALA           | Aug-97     | Sep-99                 | 3715     | 398          | Yes              | No               |                |
| FY 98   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(3)         | ACALA           | Jan-98     | Dec-99                 | 11297    | 398          | Yes              | No               |                |
| FY 99   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(4)         | ACALA           | Jan-99     | Jul-00                 | 16067    | 398          | Yes              | No               |                |

REMARKS:



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                  |         |                  |               |                       |                     | P-1 Item Nomenclature: M16 RIFLE (G14900) |                 |              |              |              |         |  |     |     |     |     |     |                  |     | Date: February 1998 |     |     |     |     |     |      |     |     |     |           |
|---------------------------------------|----------------------------------|---------|------------------|---------------|-----------------------|---------------------|---|-----------------|--------------|--------------|--------------|---------|--|-----|-----|-----|-----|-----|------------------|-----|---------------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR                              | FY      | SERV             | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98                            |                 |              |              |              |         |  |     |     |     |     |     | Fiscal Year 99   |     |                     |     |     |     |     |     |      |     |     |     | L A T E R |
|                                       |                                  |         |                  |               |                       |                     | Calendar Year 98                          |                 |              |              |              |         |  |     |     |     |     |     | Calendar Year 99 |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     | OCT                                       | NOV             | DEC          | JAN          | FEB          | MAR     | APR  | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN  | JUL | AUG | SEP |           |
| Hardware                              | 1                                | 95 & Pr | A                | 498.8         | 498.8                 |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 2                                | 95 & Pr | A                | 12.0          | 12.0                  |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | 95 & Pr | MC               | 26.1          | 26.1                  |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | 95 & Pr | N                | 7.4           | 7.4                   |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 2                                | 95 & Pr | N                | 8.6           | 8.6                   |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | 95 & Pr | AF               | 29.0          | 29.0                  |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | 95 & Pr | SDAF             | 20.0          | 20.0                  |                     |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | FY 96   | A                | 31.8          | 11.9                  | 19.9                | 1.5                                       | 1.5             | 1.5          | 1.5          | 1.5          | 1.5     | 1.5  | 1.5 | 1.2 |     | 0.2 | 1.5 | 1.5              | 1.5 | 0.5                 |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | FY 96   | FMS              | 3.1           |                       | 3.1                 |   |                 |              |              |              |         |  |     | 0.3 | 1.5 | 1.3 |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       | 1                                | FY 97   | A                | 10.3          |                       | 10.3                |   |                 |              |              |              |         |  |     |     |     |     |     | 1.0              | 1.5 | 1.5                 | 1.5 | 1.5 | 1.5 | 1.5 | 0.3 |      |     |     |     |           |
|                                       | 1                                | FY 97   | A                | 1.5           |                       | 1.5                 |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     | 1.2 | 0.3 |      |     |     |     |           |
|                                       | 1                                | FY 97   | A                | 3.7           |                       | 3.7                 |   |                 |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     | 1.1 | 2.6  |     |     |     |           |
|                                       | 1                                | FY 97   | FMS              | 1.2           |                       | 1.2                 |   | 0.9             |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     | 0.3  |     |     |     |           |
|                                       | 1                                | FY 98   | A                | 11.3          |                       | 11.3                |   |                 |              | A            |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     | 11.3 |     |     |     |           |
|                                       | 1                                | FY 99   | A                | 16.1          |                       | 16.1                |   |                 |              |              |              |         |  |     |     |     |     |     | A                |     |                     |     |     |     |     |     | 16.1 |     |     |     |           |
| <b>Total</b>                          |                                  |         |                  | <b>680.9</b>  | <b>613.8</b>          | <b>67.1</b>         | 1.5                                       | 2.4             | 1.5          | 1.5          | 1.5          | 1.5     | 1.5  | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5              | 1.5 | 1.5                 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 30.3 |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     | OCT                                       | NOV             | DEC          | JAN          | FEB          | MAR     | APR  | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN  | JUL | AUG | SEP |           |
| MFR                                   | NAME / LOCATION                  |         | PRODUCTION RATES |               |                       | REACHED             | MFR Number                                | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         | MIN.             | 1-8-5         | MAX.                  | D+                  |   | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
| 1                                     | FN Mfg Co. Inc., Columbia, SC    |         | 1.0              | 8.0           | 17.0                  | 18                  | 1   | INITIAL         | 5            | 10           | 6            | 16      | The break in production between Sep 96 and Dec 96 is due to a change in acquisition strategy from single year to multi-year procurement. |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
| 2                                     | Colt's Mfg Co. Inc. Hartford, CT |         | 1.0              | 4.0           | 10.0                  | 18                  |   | REORDER         | 5            | 2            | 26           | 28      | Funded delivery schedules and MFR leadtimes extended to maintain continuity in production rates.   |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | INITIAL         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | REORDER         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | INITIAL         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | REORDER         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | INITIAL         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | REORDER         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | INITIAL         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |
|                                       |                                  |         |                  |               |                       |                     |   | REORDER         |              |              |              |         |  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |      |     |     |     |           |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                  |         |      |               |                       |                     | P-1 Item Nomenclature: M16 RIFLE (G14900) |            |     |                 |              |              |              |              |   |     |     |     |                  | Date: February 1998 |     |     |     |           |     |     |     |     |     |     |
|---------------------------------------|----------------------------------|---------|------|---------------|-----------------------|---------------------|---|------------|-----|-----------------|--------------|--------------|--------------|--------------|---|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|
| COST ELEMENTS                         | MFR                              | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00                            |            |     |                 |              |              |              |              |   |     |     |     | Fiscal Year 01   |                     |     |     |     | L A T E R |     |     |     |     |     |     |
|                                       |                                  |         |      |               |                       |                     | Calendar Year 00                          |            |     |                 |              |              |              |              |   |     |     |     | Calendar Year 01 |                     |     |     |     |           |     |     |     |     |     |     |
|                                       |                                  |         |      |               |                       |                     | OCT                                       | NOV        | DEC | JAN             | FEB          | MAR          | APR          | MAY          | JUN   | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB |           | MAR | APR | MAY | JUN | JUL | AUG |
| Hardware                              | 1                                | 95 & Pr | A    | 498.8         | 498.8                 |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 2                                | 95 & Pr | A    | 12.0          | 12.0                  |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | 95 & Pr | MC   | 26.1          | 26.1                  |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | 95 & Pr | N    | 7.4           | 7.4                   |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 2                                | 95 & Pr | N    | 8.6           | 8.6                   |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | 95 & Pr | AF   | 29.0          | 29.0                  |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | 95 & Pr | SDAF | 20.0          | 20.0                  |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | FY 96   | A    | 31.8          | 31.8                  |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | FY 96   | FMS  | 3.1           | 3.1                   |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | FY 97   | A    | 10.3          | 10.3                  |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | FY 97   | A    | 1.5           | 1.5                   |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | FY 97   | A    | 3.7           | 1.1                   | 2.6                 | 1.5                                       | 1.1        |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       | 1                                | FY 97   | FMS  | 1.2           | 0.9                   | 0.3                 |   |            | 0.1 | 0.2             |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     | 0.0 |     |     |     |
|                                       | 1                                | FY 98   | A    | 11.3          |                       | 11.3                |   |            | 1.4 | 1.5             | 1.5          | 1.5          | 1.5          | 1.5          | 1.5   | 1.5 | 1.5 | 1.5 | 1.5              | 1.5                 | 1.5 | 1.5 | 1.5 | 1.5       | 1.5 | 1.5 |     |     |     |     |
|                                       | 1                                | FY 99   | A    | 16.1          |                       | 16.1                |   |            |     |                 |              |              |              | 0.6          | 1.5   | 1.5 | 1.5 | 1.5 | 1.5              | 1.5                 | 1.5 | 1.5 | 1.5 | 1.5       | 1.5 | 0.5 |     |     |     |     |
| <b>Total</b>                          |                                  |         |      | 680.9         | 650.6                 | 30.3                | 1.5                                       | 1.1        | 1.5 | 1.7             | 1.5          | 1.5          | 1.5          | 1.5          | 1.5   | 1.5 | 1.5 | 1.5 | 1.5              | 1.5                 | 1.5 | 1.5 | 1.5 | 1.5       | 1.5 | 1.5 | 0.0 |     |     |     |
|                                       |                                  |         |      |               |                       |                     | OCT                                       | NOV        | DEC | JAN             | FEB          | MAR          | APR          | MAY          | JUN   | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR       | APR | MAY | JUN | JUL | AUG | SEP |
| MFR                                   | NAME / LOCATION                  |         |      |               | PRODUCTION RATES      |                     | REACHED                                   | MFR Number |     | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS      |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       |                                  |         |      |               | MIN.                  | 1-8-5               | MAX.                                      | D +        |     |                 | Prior 1 Oct. | After 1 Oct. | After 1 Oct. | After 1 Oct. |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
| 1                                     | FN Mfg Co. Inc., Columbia, SC    |         |      |               | 1.0                   | 8.0                 | 17.0                                      | 18         | 1   |                 | 5            | 10           | 6            | 16           | The break in production between Sep 96 and Dec 96 is due to a change in acquisition strategy from single year to multi-year procurement. Funded delivery schedules and MFR leadtimes extended to maintain continuity in production rates. |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
| 2                                     | Colt's Mfg Co. Inc. Hartford, CT |         |      |               | 1.0                   | 4.0                 | 10.0                                      | 18         |     |                 | 5            | 2            | 26           | 28           |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       |                                  |         |      |               |                       |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       |                                  |         |      |               |                       |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       |                                  |         |      |               |                       |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |
|                                       |                                  |         |      |               |                       |                     |   |            |     |                 |              |              |              |              |   |     |     |     |                  |                     |     |     |     |           |     |     |     |     |     |     |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: 5.56 CARBINE M4 (G14904)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 41582       | 15892   | 9785    | 10603   | 7484    | 6310    | 8687    | 8309    |         |         |             | 108652     |
| Gross Cost       | 20.9        | 10.8    | 6.3     | 6.5     | 5.0     | 4.2     | 5.4     | 5.3     | 0.0     | 0.0     | 0.0         | 64.4       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 20.9        | 10.8    | 6.3     | 6.5     | 5.0     | 4.2     | 5.4     | 5.3     | 0.0     | 0.0     | 0.0         | 64.4       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 20.9        | 10.8    | 6.3     | 6.5     | 5.0     | 4.2     | 5.4     | 5.3     | 0.0     | 0.0     | 0.0         | 64.4       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M4 Carbine is a 5.56mm gas-operated, air-cooled, magazine-fed, selective-rate, shoulder-fired weapon. It is fed by a 30-round magazine and will replace all M3A1 WWII era .45 cal Submachine guns, and selective M16 series rifles and M9 pistols. It provides the individual soldier operating in close quarters the capability to engage targets at extended ranges with accurate lethal fire. Although more compact and featuring a collapsible stock, it achieves over 85% commonality with the M16A2 rifle. The effective range is 500 meters.

**JUSTIFICATION:** The M4 Carbine will provide soldiers with a compact, light-weight weapon that can provide better self protection and additional firepower in close quarters. The FY99 program will allow for the uninterrupted fielding of the M4 Carbine to Army units. Procurement is necessary to achieve the Army Acquisition Objective (AAO) for the M4 Carbine.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis                               |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |             |      | P-1 Line Item Nomenclature:<br>5.56 CARBINE M4 (G14904) |             |       | Weapon System Type: |             |      | Date:<br>February 1998 |             |      |          |
|---|--|---|-------------|------|---|-------------|-------|---------------------|-------------|------|------------------------|-------------|------|----------|
| WTCV<br>Cost Elements   |  | ID  | FY 96       |      |   | FY 97       |       |                     | FY 98       |      |                        | FY 99       |      |          |
|   |  | CD  | TotalCost   | Qty  | UnitCost  | TotalCost   | Qty   | UnitCost            | TotalCost   | Qty  | UnitCost               | TotalCost   | Qty  | UnitCost |
|   |  |   | \$000       | Each | \$000   | \$000       | Each  | \$000               | \$000       | Each | \$000                  | \$000       | Each | \$000    |
| 1. Hardware<br>M4 Carbine w/Sling Magazine & Blank Firing<br>Attachment |  | A   | 5161        | 9785 | 1   | 5524        | 10603 | 1                   | 3899        | 7484 | 1                      | 3288        | 6310 | 1        |
| 2. Engineering Support<br>- In House Support                            |  |   | 400         |      |   | 362         |       |                     | 425         |      |                        | 443         |      |          |
| 3. Engineering Change Proposals (ECP's)                                 |  |   | 59          |      |   | 48          |       |                     | 105         |      |                        | 85          |      |          |
| 4. Quality Assurance (ARDEC)  |  |   | 75          |      |   | 75          |       |                     | 75          |      |                        | 75          |      |          |
| 5. ILS  |  |   | 65          |      |   |             |       |                     | 65          |      |                        | 65          |      |          |
| 6. Engineering Studies  |  |   | 220         |      |   |             |       |                     |             |      |                        |             |      |          |
| 7. Comparison Test (TECOM)  |  |   |             |      |   | 175         |       |                     | 151         |      |                        |             |      |          |
| 8. Fielding   |  |   | 312         |      |   | 339         |       |                     | 264         |      |                        | 274         |      |          |
| <b>TOTAL</b>  |  |   | <b>6292</b> |      |   | <b>6523</b> |       |                     | <b>4984</b> |      |                        | <b>4230</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 Weapon System Type:  
 P-1 Line Item Nomenclature: 5.56 CARBINE M4 (G14904)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location           | Contract Method and Type  | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-----------------------------------|---------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Hardware<br>FY 96               | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP<br>M-4(1)          | ACALA           | Oct-97     | Jun-98                 | 6000     | 1               | Yes              | No               |                |
|                                    | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP                    | ACALA           | Mar-98     | Oct-98                 | 3785     | 1               | Yes              | No               |                |
| FY 97                              | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP                    | ACALA           | Mar-98     | Apr-99                 | 10603    | 1               | Yes              | No               |                |
| FY 98                              | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP<br>M-4(2)          | ACALA           | Jan-98     | Jun-99                 | 6000     | 1               | Yes              | No               |                |
|                                    | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP                    | ACALA           | Mar-98     | Oct-00                 | 1484     | 1               | Yes              | No               |                |
| FY 99                              | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP<br>M-4(3)          | ACALA           | Jan-99     | Jun-00                 | 6000     | 1               | Yes              | No               |                |
|                                    | Colt's Mfg Co., Inc. Hartford, CT | Option/<br>FY98<br>SS/FFP | ACALA           | Jan-99     | Dec-00                 | 310      | 1               | Yes              | No               |                |

REMARKS:

|  |  |                        |
|--|--|------------------------|
| <b>FY 98 / 99 BUDGET PRODUCTION SCHEDULE</b> | P-1 Item Nomenclature:<br>5.56 CARBINE M4 (G14904) | Date:<br>February 1998 |
|--|--|------------------------|

| COST ELEMENTS | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96   |     |     |            |            |            |            |            |            |            |            |            | Fiscal Year 97   |            |            |            |            |            |            |            |            |            |            |     | L A T E R |             |     |     |      |
|---------------|-----|-------|------|---------------|-----------------------|---------------------|------------------|-----|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|-----------|-------------|-----|-----|------|
|               |     |       |      |               |                       |                     | Calendar Year 96 |     |     |            |            |            |            |            |            |            |            |            | Calendar Year 97 |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     |      |
|               |     |       |      |               |                       |                     | OCT              | NOV | DEC | JAN        | FEB        | MAR        | APR        | MAY        | JUN        | JUL        | AUG        | SEP        | OCT              | NOV        | DEC        | JAN        | FEB        | MAR        | APR        | MAY        | JUN        | JUL        | AUG        | SEP |           |             |     |     |      |
| Hardware      | 1   | 95&Pr | A    | 57.5          | 7.1                   | 50.4                | 2.0              |     |     | 1.0        | 1.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0              | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0        | 2.0 | 2.0       | 2.0         | 1.0 | 1.0 | 12.4 |
|               | 1   | 95&Pr | N    | 0.9           | 0.9                   |                     |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     |      |
|               | 1   | 95&Pr | SDAF | 0.5           | 0.5                   |                     |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     |      |
|               | 1   | 95&Pr | FMS  | 0.2           |                       | 0.2                 |                  |     |     |            |            |            |            |            |            |            | A          |            |                  |            |            |            |            |            | 0.2        |            |            |            |            |     |           |             |     |     |      |
|               | 1   | FY96  | A    | 6.0           |                       | 6.0                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 6.0  |
|               | 1   | FY96  | N    | 1.8           |                       | 1.8                 |                  |     |     |            |            |            | A          | 0.8        | 1.0        |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     |      |
|               | 1   | FY96  | OTH  | 1.5           |                       | 1.5                 |                  |     |     |            |            |            |            |            |            |            | A          |            |                  | 1.5        |            |            |            |            |            |            |            |            |            |     |           |             |     |     |      |
|               | 1   | FY96  | OTH  | 1.0           |                       | 1.0                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            | A          |            | 1.0        |            |            |            |            |            |            |     |           |             |     |     |      |
|               | 1   | FY 96 | A    | 3.8           |                       | 3.8                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 3.8  |
|               | 1   | FY97  | A    | 10.6          |                       | 10.6                |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 10.6 |
|               | 1   | FY97  | N    | 1.8           |                       | 1.8                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            | A          |            |            |            | 1.8        |            |            |            |     |           |             |     |     |      |
|               | 1   | FY98  | A    | 6.0           |                       | 6.0                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 6.0  |
|               | 1   | FY 98 | A    | 1.5           |                       | 1.5                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 1.5  |
|               | 1   | FY 99 | A    | 6.0           |                       | 6.0                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 6.0  |
|               | 1   | FY 99 | A    | 0.3           |                       | 0.3                 |                  |     |     |            |            |            |            |            |            |            |            |            |                  |            |            |            |            |            |            |            |            |            |            |     |           |             |     |     | 0.3  |
| <b>Total</b>  |     |       |      | <b>99.4</b>   | <b>8.5</b>            | <b>90.9</b>         | <b>2.0</b>       |     |     | <b>1.0</b> | <b>1.0</b> | <b>2.0</b> | <b>2.0</b> | <b>2.8</b> | <b>3.0</b> | <b>2.0</b> | <b>2.0</b> | <b>2.0</b> | <b>2.0</b>       | <b>3.5</b> | <b>2.0</b> | <b>2.0</b> | <b>3.0</b> | <b>2.2</b> | <b>2.0</b> | <b>2.0</b> | <b>3.8</b> | <b>1.0</b> | <b>1.0</b> |     |           | <b>46.6</b> |     |     |      |

| MFR | NAME / LOCATION                   | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |   |
|-----|-----------------------------------|------------------|-------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---------|---|
|     |                                   | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |   |
| 1   | Colt's Mfg. Co. Inc., Hartford CT | 0.5              | 2.0   | 8.0  | 18          | 1          | INITIAL         | 7            | 24               | 9                  | 33      | To retain Colt in the Small Arms Industrial Base, a multi-year contract was awarded in Oct 97, providing a minimum sustaining rate of 500 weapons/ month . Balance of annual requirements will also be awarded to Colt, based on a recent legal decision. Initial Leadtimes will not be met due to termination of FY96 contract. Funded delivery period and MFR leadtimes extended to maintain continuity in production rates |
|     |                                   |                  |       |      |             |            | REORDER         | 7            | 17               | 14                 | 31      |   |
|     |                                   |                  |       |      |             |            | INITIAL         |              |                  |                    |         |   |
|     |                                   |                  |       |      |             |            | REORDER         |              |                  |                    |         |   |
|     |                                   |                  |       |      |             |            | INITIAL         |              |                  |                    |         |   |
|     |                                   |                  |       |      |             |            | REORDER         |              |                  |                    |         |   |
|     |                                   |                  |       |      |             |            | INITIAL         |              |                  |                    |         |   |
|     |                                   |                  |       |      |             |            | REORDER         |              |                  |                    |         |   |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                   |       |                  |                     |                                | P-1 Item Nomenclature: 5.56 CARBINE M4 (G14904) |                  |             |                 |              |              |              |   |             |             |             |             |             | Date: February 1998   |             |             |             | L<br>A<br>T<br>E<br>R |             |             |             |             |             |             |             |
|---------------------------------------|-----------------------------------|-------|------------------|---------------------|--------------------------------|---|------------------|-------------|-----------------|--------------|--------------|--------------|---|-------------|-------------|-------------|-------------|-------------|-----------------------|-------------|-------------|-------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| COST ELEMENTS                         | M<br>F<br>R                       | FY    | S<br>E<br>R<br>V | PROC<br>QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT                    | Fiscal Year 98   |             |                 |              |              |              | Fiscal Year 99  |             |             |             |             |             | L<br>A<br>T<br>E<br>R |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   | Calendar Year 98 |             |                 |              |              |              | Calendar Year 99  |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C     | J<br>A<br>N  | F<br>E<br>B  | M<br>A<br>R  | A<br>P<br>R   | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                       | O<br>C<br>T | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N           | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G |
| Hardware                              | 1                                 | 95&Pr | A                | 57.5                | 45.1                           | 12.4  | 1.0              | 1.0         | 1.0             | 2.0          | 2.0          | 2.0          | 2.0   | 1.4         |             |             |             |             |                       |             |             |             |                       |             |             |             |             | 0.0         |             |             |
|                                       | 1                                 | 95&Pr | N                | 0.9                 | 0.9                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | 95&Pr | SDAF             | 0.5                 | 0.5                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | 95&Pr | FMS              | 0.2                 | 0.2                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | FY96  | A                | 6.0                 |                                | 6.0   | A                |             |                 |              |              |              |   |             | 0.5         | 0.5         | 0.5         | 0.5         | 0.5                   | 0.5         | 0.5         | 0.5         | 0.5                   | 0.5         | 0.5         | 0.5         |             |             |             |             |
|                                       | 1                                 | FY96  | N                | 1.8                 | 1.8                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | FY96  | OTH              | 1.5                 | 1.5                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | FY96  | OTH              | 1.0                 | 1.0                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | FY 96 | A                | 3.8                 |                                | 3.8   |                  |             |                 |              |              | A            |   |             |             |             |             | 0.6         | 0.6                   | 0.6         | 0.6         | 0.6         | 0.6                   | 0.2         |             |             |             | 0.0         |             |             |
|                                       | 1                                 | FY97  | A                | 10.6                |                                | 10.6  |                  |             |                 |              |              | A            |   |             |             |             |             |             |                       |             |             |             | 0.4                   | 0.6         | 0.6         | 0.6         | 0.6         | 0.6         | 7.2         |             |
|                                       | 1                                 | FY97  | N                | 1.8                 | 1.8                            |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       | 1                                 | FY98  | A                | 6.0                 |                                | 6.0   |                  |             | A               |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             | 0.5         | 0.5         | 0.5         | 0.5         | 4.0         |             |
|                                       | 1                                 | FY 98 | A                | 1.5                 |                                | 1.5   |                  |             |                 |              | A            |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             | 1.5         |             |             |
|                                       | 1                                 | FY 99 | A                | 6.0                 |                                | 6.0   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             | A           |             |                       |             |             |             |             | 6.0         |             |             |
|                                       | 1                                 | FY 99 | A                | 0.3                 |                                | 0.3   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             | A           |             |                       |             |             |             |             | 0.3         |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
| Total                                 |                                   |       |                  | 99.4                | 52.8                           | 46.6  | 1.0              | 1.0         | 1.0             | 2.0          | 2.0          | 2.0          | 2.0   | 1.4         | 0.5         | 0.5         | 0.5         | 0.5         | 1.1                   | 1.1         | 1.1         | 1.1         | 1.1                   | 1.1         | 1.1         | 1.1         | 1.1         | 1.1         | 1.1         | 19.0        |
| M<br>F<br>R                           | NAME / LOCATION                   |       |                  | PRODUCTION RATES    |                                |   | REACHED          | MFR         | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
| 1                                     | Colt's Mfg. Co. Inc., Hartford CT |       |                  | MIN.                | 1-8-5                          | MAX.  | D +              | Number      | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. | To retain Colt in the Small Arms Industrial Base, a multi-year contract was awarded in Oct 97, providing a minimum sustaining rate of 500 weapomns/month. Balance of annual requirements will also be awarded to Colt based on a recent legal decision. Initial leadtimes will not be met due to termination of FY96 contract. Funded delivery period and MFR leadtimes extended to maintain continuity in production rates |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  | 1           | 7               | 24           | 9            | 33           |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             | 7               | 17           | 14           | 31           |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |
|                                       |                                   |       |                  |                     |                                |   |                  |             |                 |              |              |              |   |             |             |             |             |             |                       |             |             |             |                       |             |             |             |             |             |             |             |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       | P-1 Item Nomenclature: 5.56 CARBINE M4 (G14904) |                  |       |       |       |       |       |       |       |       |       |       |       |       | Date: February 1998 |                  |       |       |       |       |       |           |       |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------|------------------|-------|-------|-------|-------|-------|-----------|-------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT                             | Fiscal Year 00   |       |       |       |       |       |       |       |       |       |       |       |       |                     | Fiscal Year 01   |       |       |       |       |       | L A T E R |       |
|                                       |     |       |      |               |                       |   | Calendar Year 00 |       |       |       |       |       |       |       |       |       |       |       |       |                     | Calendar Year 01 |       |       |       |       |       |           |       |
|                                       |     |       |      |               |                       |   | O C T            | N O V | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P | O C T | N O V               | D E C            | J A N | F E B | M A R | A P R | M A Y |           | J U N |
| Hardware                              | 1   | 95&Pr | A    | 57.5          | 57.5                  |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | 95&Pr | N    | 0.9           | 0.9                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | 95&Pr | SDAF | 0.5           | 0.5                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | 95&Pr | FMS  | 0.2           | 0.2                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY96  | A    | 6.0           | 6.0                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY96  | N    | 1.8           | 1.8                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY96  | OTH  | 1.5           | 1.5                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY96  | OTH  | 1.0           | 1.0                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY 96 | A    | 3.8           | 3.8                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY97  | A    | 10.6          | 3.4                   | 7.2   | 0.6              | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY97  | N    | 1.8           | 1.8                   |   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY98  | A    | 6.0           | 2.0                   | 4.0   | 0.5              | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY 98 | A    | 1.5           |                       | 1.5   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY 99 | A    | 6.0           |                       | 6.0   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
|                                       | 1   | FY 99 | A    | 0.3           |                       | 0.3   |                  |       |       |       |       |       |       |       |       |       |       |       |       |                     |                  |       |       |       |       |       |           |       |
| Total                                 |     |       |      | 99.4          | 80.4                  | 19.0  | 1.1              | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 0.5                 | 0.5              | 0.5   | 0.5   | 0.5   |       |       |           | 0.0   |

  

| MFR | NAME / LOCATION                   | PRODUCTION RATES | REACHED | MFR Number | ADMIN LEAD TIME           | MFR          | TOTAL        | REMARKS   |
|-----|-----------------------------------|------------------|---------|------------|---------------------------|--------------|--------------|---|
|     |                                   | MIN. 1-8-5 MAX.  | D +     |            | Prior 1 Oct. After 1 Oct. | After 1 Oct. | After 1 Oct. |   |
| 1   | Colt's Mfg. Co. Inc., Hartford CT | 0.5 2.0 8.0      | 18      | 1          | 7 24                      | 9            | 33           | To retain Colt in the Small Arms Industrial Base, a multiyear contract was awarded in Oct 97 providing a minimum sustaining rate of 500 weapons/month. Balance of annual requirements will also be awarded to Colt based on a recent legal decision. Initial leadtimes will not be met due to termination of FY96 contract. Funded delivery period and MFR leadtimes extended to maintain continuity in production rates. |
|     |                                   |                  |         |            | 7 17                      | 14           | 31           |   |
|     |                                   |                  |         |            | INITIAL                   |              |              |   |
|     |                                   |                  |         |            | REORDER                   |              |              |   |
|     |                                   |                  |         |            | INITIAL                   |              |              |   |
|     |                                   |                  |         |            | REORDER                   |              |              |   |
|     |                                   |                  |         |            | INITIAL                   |              |              |   |
|     |                                   |                  |         |            | REORDER                   |              |              |   |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV (GC0925))

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 68.3        | 2.6     | 1.4     | 0.6     | 1.4     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0         | 80.1       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 68.3        | 2.6     | 1.4     | 0.6     | 1.4     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0         | 80.1       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 68.3        | 2.6     | 1.4     | 0.6     | 1.4     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0         | 80.1       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Provides for modification of Weapons and Other Combat Vehicles with a cost less than \$2.0 Million.

JUSTIFICATION: Funds identified in FY97/FY98 will modify the M198 Howitzer and provide machine gun optic sights for the M249, M60 and M240B Machine Guns. The M198 Howitzer will improve the reliability, availability and maintainability (RAM), handling, equilibrators, durability of parts, a reduction in operator fatigue and increased users' satisfaction. The M198 will have the latest enhancements available to service the currently envisioned battlefield. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system.

Exhibit P-40M Budget Item Justification Sheet

Date February 1998

Appropriation / Budget Activity/Serial No. PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
P-1 Item Nomenclature MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV) (GC0925)

Program Elements for Code B Items Code Other Related Program Elements

| Description                      |                | Fiscal Years |         |         |         |         |         |         |         |     |       |
|----------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO.                         | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| M198 Howitzer System Improvement |                |              |         |         |         |         |         |         |         |     |       |
| TBD1                             | Operational    | 13.8         | 0.6     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0 | 14.5  |
| Machine Gun Optics               |                |              |         |         |         |         |         |         |         |     |       |
| TBD2                             | Operational    | 0.0          | 0.0     | 1.3     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0 | 7.1   |
| Totals                           |                | 13.8         | 0.6     | 1.3     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0 | 21.5  |

| INDIVIDUAL MODIFICATION   |  |         |    |    |    |                          |    |   |   | Date    |   | February 1998 |   |                      |  |   |   |          |   |        |     |     |
|---|--|---------|----|----|----|--------------------------|----|---|---|---------|---|---------------|---|----------------------|--|---|---|----------|---|--------|-----|-----|
| MODIFICATION TITLE: M198 Howitzer System Improvement TBD1   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |  |   |   |          |   |        |     |     |
| MODELS OF SYSTEMS AFFECTED: M198 Howitzer, Medium Towed   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |  |   |   |          |   |        |     |     |
| DESCRIPTION / JUSTIFICATION:<br><p>The purpose of the Materiel Change (MC) is to improve the reliability of the M198 System, improve the brake system, reduce operator fatigue, improve the retention of hardware and improve equilibrators adjustment. The areas of improvement were a result of M198 fielded system review. Improvements in ram, handling maneuverability, durability of parts, a reduction in operator fatigue and increased users satisfaction is expected.</p> |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |  |   |   |          |   |        |     |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |         |    |    |    |                          |    |   |   | PLANNED |   |               |   |                      | ACCOMPLISHED   |   |   |          |   |        |     |     |
|   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      | Production Contract Awarded 1Q91<br>First Production Hardware Delivered 3Q91<br>MFA/MWOFN Negotiated 3Q91<br>First Kit Applied 3Q91<br>Last Kit Applied 1Q98<br>Collective Evaluation Completed 4Q98 |   |   |          |   |        |     |     |
| Installation Schedule:  |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |  |   |   |          |   |        |     |     |
| Pr Yr   |  | FY 1997 |    |    |    | FY 1998                  |    |   |   | FY 1999 |   |               |   | FY 2000              |  |   |   | FY 2001  |   |        |     |     |
| Totals  |  | 1       | 2  | 3  | 4  | 1                        | 2  | 3 | 4 | 1       | 2 | 3             | 4 | 1                    | 2  | 3 | 4 | 1        | 2 | 3      | 4   |     |
| <b>Inputs</b>   |  | 673     | 17 | 17 | 18 | 14                       |    |   |   |         |   |               |   |                      |  |   |   |          |   |        |     |     |
| <b>Outputs</b>  |  | 673     | 4  | 10 | 17 | 18                       | 17 |   |   |         |   |               |   |                      |  |   |   |          |   |        |     |     |
|   |  | FY 2002 |    |    |    | FY 2003                  |    |   |   | FY 2004 |   |               |   | FY 2005              |  |   |   | To       |   | Totals |     |     |
|   |  | 1       | 2  | 3  | 4  | 1                        | 2  | 3 | 4 | 1       | 2 | 3             | 4 | 1                    | 2  | 3 | 4 | Complete |   |        |     |     |
| <b>Inputs</b>   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |  |   |   |          |   |        | 739 |     |
| <b>Outputs</b>  |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |  |   |   |          |   |        |     | 739 |
| METHOD OF IMPLEMENTATION:   |  | Depot   |    |    |    | ADMINISTRATIVE LEADTIME: |    |   |   | Months  |   |               |   | PRODUCTION LEADTIME: |  |   |   | Months   |   |        |     |     |
| Contract Dates:   |  | FY 1997 |    |    |    | FY 1998                  |    |   |   | FY 1999 |   |               |   | FY 1999              |  |   |   |          |   |        |     |     |
| Delivery Date:  |  | FY 1997 |    |    |    | FY 1998                  |    |   |   | FY 1999 |   |               |   | FY 1999              |  |   |   |          |   |        |     |     |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): M198 Howitzer System Improvement TBD1

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |       |
|---|-------------------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-------|
|   | Qty               | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |       |
| RDT&E                                     |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| PROCUREMENT                               |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Kit Quantity                              | 739               |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 739 |       |
| Installation Kits                         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Installation Kits, Nonrecurring Equipment |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Equipment, Nonrecurring                   |                   | 9.755 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 9.755 |
| Engineering Change Orders                 |                   | 1.616 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.616 |
| Data                                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Training Equipment                        |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Support Equipment                         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Fielding                                  |                   | 0.071 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.071 |
| Interim Contractor Support                |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Installation of Hardware                  |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 1996 & Prior Eqpt -- Kits              | 673               | 2.388 | 66      | 0.627 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 739 | 3.015 |
| FY 1997 Eqpt -- Kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 1998 Eqpt -- Kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 1999 Eqpt -- Kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2000 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2001 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2002 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2003 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| TC Equip-Kits                             |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Total Installment                         | 673               | 2.388 | 66      | 0.627 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 739 | 3.015 |
| Total Procurement Cos                     |                   | 13.8  |         | 0.6   |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 14.5  |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   | Date     |   | February 1998 |   |                      |              |   |   |           |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------|---|---------------|---|----------------------|--------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: Machine Gun Optics TBD2   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M249 Squad Automatic Weapon; M60 Machine Guns, M240B Machine Guns   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>The Machine Gun Optic Program provides an optic (telescopic) sight for the 5.56mm M249 Light Machine Gun and 7.62mm Medium Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system. |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
|   |  |                  |   |   |   |                          |   |   |   | PLANNED  |   |               |   |                      | ACCOMPLISHED |   |   |           |   |        |   |
| Development/Operational Tests   |  |                  |   |   |   |                          |   |   |   | 3Q98     |   |               |   |                      |              |   |   |           |   |        |   |
| Type Classification   |  |                  |   |   |   |                          |   |   |   | 4Q98     |   |               |   |                      |              |   |   |           |   |        |   |
| Production Contract Award   |  |                  |   |   |   |                          |   |   |   | 4Q98     |   |               |   |                      |              |   |   |           |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   | 1Q99     |   |               |   |                      |              |   |   |           |   |        |   |
| First Unit Equipped   |  |                  |   |   |   |                          |   |   |   | 2Q99     |   |               |   |                      |              |   |   |           |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   | FY 2000              |              |   |   | FY 2001   |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004  |   |               |   | FY 2005              |              |   |   | To        |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |           |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 1 Months |   |               |   | PRODUCTION LEADTIME: |              |   |   | 10 Months |   |        |   |
| Contract Dates:   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | Aug 98   |   |               |   | FY 1999              |              |   |   | Jan 99    |   |        |   |
| Delivery Date:  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | Nov 98   |   |               |   | FY 1999              |              |   |   | Oct 99    |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Machine Gun Optics TBD2

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |       | FY 1999 |       | FY 2000 |       | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |    | TOTAL |       |     |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|-----|---------|-----|---------|-----|-----|----|-------|-------|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$ | Qty   | \$    |     |
| RDT&E                           |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| PROCUREMENT                     |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| Kit Quantity                    |                   |    |         |    | 1718    |       | 1378    |       | 1214    |       | 1191    |     | 1626    |     | 1625    |     |     |    |       | 8752  |     |
| Installation Kits               |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| Equipment                       |                   |    |         |    |         | 1.117 | 0.896   | 0.789 | 0.774   | 1.057 | 1.056   |     |         |     |         |     |     |    |       | 5.689 |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| Engineering Support             |                   |    |         |    |         | 0.140 | 0.143   | 0.143 | 0.144   | 0.144 | 0.144   |     |         |     |         |     |     |    |       | 0.858 |     |
| Testing                         |                   |    |         |    |         | 0.050 | 0.050   | 0.050 | 0.050   | 0.050 | 0.050   |     |         |     |         |     |     |    |       | 0.300 |     |
| Integrated Logistical Support   |                   |    |         |    |         | 0.020 | 0.019   | 0.020 | 0.020   | 0.020 | 0.020   |     |         |     |         |     |     |    |       | 0.119 |     |
| Fielding                        |                   |    |         |    |         | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 | 0.020   |     |         |     |         |     |     |    |       | 0.120 |     |
| Other                           |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| Interim Contractor Support      |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| Installation of Hardware        |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |       |         |       |         |       |         |     |         |     |         |     |     |    |       |       |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |       | 1350    |       | 368     |       |         |     |         |     |         |     |     |    |       | 1718  |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |       |         |       | 1010    |       | 368     |     |         |     |         |     |     |    |       | 1378  |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       | 1214    |     |         |     |         |     |     |    |       | 1214  |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       | 218     |     |         |     |         |     |     |    |       | 1191  |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         | 973 |         |     |         |     |     |    |       | 1626  |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |     | 827     |     | 799     |     |     |    |       | 1625  |     |
| TC Equip-Kits                   |                   |    |         |    |         |       |         |       |         |       |         |     |         |     | 1001    |     | 624 |    |       |       |     |
| Total Installment               |                   |    |         |    |         |       | 1350    |       | 1378    |       | 1800    |     | 1800    |     | 1800    |     | 624 |    |       | 8752  |     |
| Total Procurement Cos           |                   |    |         |    |         | 1.3   |         | 1.1   |         | 1.0   |         | 1.0 |         | 1.3 |         | 1.3 |     |    |       |       | 7.1 |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ABRAMS TRNG DEV MOD (GA5208)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 14.2        | 1.0     | 3.0     | 3.2     | 2.2     | 8.5     | 2.7     | 5.5     | 5.7     | 5.7     | 13.0        | 64.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 14.2        | 1.0     | 3.0     | 3.2     | 2.2     | 8.5     | 2.7     | 5.5     | 5.7     | 5.7     | 13.0        | 64.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 14.2        | 1.0     | 3.0     | 3.2     | 2.2     | 8.5     | 2.7     | 5.5     | 5.7     | 5.7     | 13.0        | 64.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** Funding provided will accomplish modifications to Abrams Training Devices required as a result of changes to the Abrams tanks or tank training requirements. These changes are hardware and software modifications to existing equipment to keep simulators abreast of developments in the Abrams Tank System.

**JUSTIFICATION:** The program reflected here-in is structured to meet needs validated by the Abrams user community. Degradation of tank training will occur if these modifications are delayed or deleted. The intended sites for the Conduct of Fire Trainer (COFT) M60A3 to M1 Conversions are for the National Guard units. The average expected gunner and commander throughput per year for the modified COFT is 3,016. The Conduct of Fire Trainer (COFT) M1 to M1A1, Optical Improvement (OIP) and Armament Enhancement Initiative (AEI) modifications are for units at FORSCOM, USAREUR, TRADOC, and National Guard.

| Exhibit P-40M Budget Item Justification Sheet  |                |              |         |         |                                |         |         | Date  |         |      |       |  |
|--|----------------|--------------|---------|---------|--------------------------------|---------|---------|---|---------|------|-------|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                |              |         |         |                                |         |         | P-1 Item Nomenclature<br>ABRAMS TRNG DEV MOD (GA5208) |         |      |       |  |
| Program Elements for Code B Items  |                |              | Code    |         | Other Related Program Elements |         |         |   |         |      |       |  |
| Description  |                | Fiscal Years |         |         |                                |         |         |   |         |      |       |  |
| OSIP NO.   | Classification | FY 1996      | FY 1997 | FY 1998 | FY 1999                        | FY 2000 | FY 2001 | FY 2002   | FY 2003 | TC   | Total |  |
| M60A3 to M1 Conversion Kits  |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-03-05-4430   | Operational    | 5.4          | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0     | 0.0   | 0.0     | 0.0  | 5.4   |  |
| OIP Modification to M1A1 COFTs   |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-90-05-7877   | Operational    | 2.1          | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0     | 0.0   | 0.0     | 0.0  | 2.1   |  |
| AEI  |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-93-05-4452   | Operational    | 1.7          | 0.0     | 0.0     | 0.0                            | 0.0     | 0.0     | 0.0   | 0.0     | 0.0  | 1.7   |  |
| M1 to M1A1 Modification Kits   |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-92-06-4419   | Operational    | 2.2          | 0.4     | 0.0     | 0.0                            | 0.0     | 0.0     | 0.0   | 0.0     | 0.0  | 2.6   |  |
| Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost  |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-97-05-4526   | Operational    | 0.0          | 2.8     | 2.2     | 4.1                            | 0.8     | 0.8     | 0.8   | 0.8     | 4.3  | 16.6  |  |
| AGTS/SEP Mod   |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-97-05-4527   | Operational    | 0.0          | 0.0     | 0.0     | 0.0                            | 0.0     | 0.6     | 2.4   | 2.4     | 6.0  | 11.4  |  |
| Tank Driver Trainer Mod (M1A2 SEP Upgrade)   |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-97-05-4528   | Operational    | 0.0          | 0.0     | 0.0     | 4.2                            | 1.4     | 0.0     | 0.0   | 0.5     | 0.0  | 6.1   |  |
| Close Combat Tactical Trainer (CCTT)/SEP Mod   |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-97-05-4529   | Operational    | 0.0          | 0.0     | 0.0     | 0.0                            | 0.2     | 0.9     | 2.5   | 2.0     | 2.7  | 8.3   |  |
| Maintenance Training System (MTS) SEP Mod  |                |              |         |         |                                |         |         |   |         |      |       |  |
| 1-97-05-4530   | Operational    | 0.0          | 0.0     | 0.0     | 0.2                            | 0.3     | 3.2     | 0.0   | 0.0     | 0.0  | 3.7   |  |
| Totals   |                | 11.4         | 3.2     | 2.2     | 8.5                            | 2.7     | 5.5     | 5.7   | 5.7     | 13.0 | 57.9  |  |
| FY96 & prior does not include 6.8 of FY93 program dollars for mod that has been completed.                       |                |              |         |         |                                |         |         |   |         |      |       |  |

| INDIVIDUAL MODIFICATION   |         |   |   |   |         |   |   |   |         | Date           |   | February 1998 |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---------|---|---|---|---------|---|---|---|---------|----------------|---|---------------|---------|---|---------------------|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----------------|---|---|---|---|---|---------------|----|---|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|----------------|----|--|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: M60A3 to M1 Conversion Kits 1-03-05-4430  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M60A3 COFTs   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&amp;S costs associated with ammunition consumption. The COFT is configured to the tank system it supports.</p> <p>In support of the Abrams fielding schedule, the conversion of M60A3 COFTs to M1 COFTs is required to meet the Army's new force structure. The structure has changed to make the M60 tank and training devices obsolete. This situation establishes an urgent requirement to convert the M60A3 COFTs to M1 configuration.</p> <p>Without this modification, one of the following most likely will occur: 1) Negative training results from using outdated COFTs; 2) In lieu of using the outdated COFTs, units do little or no gunnery training; or 3) Units increase training with the tank and consumption of full caliber ammunition (which is more costly and ultimately defeats the primary purpose of the COI).</p>   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |         |   |   |   |         |   |   |   |         | <u>PLANNED</u> |   |               |         |   | <u>ACCOMPLISHED</u> |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contractor Test and Evaluation:   |         |   |   |   |         |   |   |   |         | 4Q95           |   |               |         |   | 1Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Operational Test and Evaluation:  |         |   |   |   |         |   |   |   |         | 4Q95           |   |               |         |   | 1Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td><b>Inputs</b></td> <td>16</td><td>4</td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>13</td><td></td><td>2</td><td>1</td> <td>4</td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2  | 3              | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 16 | 4 |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  | <b>Outputs</b> | 13 |  | 2 | 1 | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr   | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                |   |               | FY 2000 |   |                     |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Totals</b>   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   | 16      | 4 |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  | 13      |   | 2 | 1 | 4       |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>20</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>20</td> </tr> </tbody> </table>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   | 20 | <b>Outputs</b> |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  | 20 |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                |   |               | FY 2005 |   |                     |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   | 20    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   | 20    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor      ADMINISTRATIVE LEADTIME: 1 Months      PRODUCTION LEADTIME: 12 Months   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates:      FY 1997      FY 1998      FY 1999  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date:      FY 1997      FY 1998      FY 1999   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |   |  |  |  |  |  |  |  |  |  |  |  |    |  |  |  |  |  |  |                |    |  |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M60A3 to M1 Conversion Kits 1-03-05-4430

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |     | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|-------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty               | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 20                | 3.8 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 20    | 3.8 |     |
| Installation Kits, Nonrecurring |                   | 1.6 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.6 |
| Equipment                       |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                   | 5.4 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 5.4 |

| INDIVIDUAL MODIFICATION  |  |            |   |    |    |                          |    |    |    | Date           |   | February 1998 |   |                      |                     |   |   |           |   |        |   |
|--|--|------------|---|----|----|--------------------------|----|----|----|----------------|---|---------------|---|----------------------|---------------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: OIP Modification to M1A1 COFTs 1-90-05-7877  |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A1 COFTs   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>This modification is required because the tank's optics now include filters to protect the crew from eye damage resulting from exposure to lasers. To accommodate the improved optics, a new switch, which induces the eye safe laser filters, has been added and the switch used to change the gunner's sight from high to low power has been redesigned and relocated. Training with the Conduct of Fire Trainers (COFTs) enable the gunners and commanders to quickly find and use the correct switches by touch. |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
|  |  |            |   |    |    |                          |    |    |    | <u>PLANNED</u> |   |               |   |                      | <u>ACCOMPLISHED</u> |   |   |           |   |        |   |
| Contractor Test and Evaluation:  |  |            |   |    |    |                          |    |    |    | 1Q96           |   |               |   |                      | 1Q96                |   |   |           |   |        |   |
| Initial Operational Test and Evaluation:   |  |            |   |    |    |                          |    |    |    | 2Q96           |   |               |   |                      | 3Q96                |   |   |           |   |        |   |
| Installation Schedule:   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| Pr Yr  |  | FY 1997    |   |    |    | FY 1998                  |    |    |    | FY 1999        |   |               |   | FY 2000              |                     |   |   | FY 2001   |   |        |   |
| Totals   |  | 1          | 2 | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>  |  | 20         |   |    | 20 | 20                       | 20 | 20 |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| <b>Outputs</b>   |  |            |   | 20 | 20 | 10                       | 10 | 20 | 20 |                |   |               |   |                      |                     |   |   |           |   |        |   |
|  |  | FY 2002    |   |    |    | FY 2003                  |    |    |    | FY 2004        |   |               |   | FY 2005              |                     |   |   | To        |   | Totals |   |
|  |  | 1          | 2 | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>  |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
| <b>Outputs</b>   |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   |           |   |        |   |
|  |  |            |   |    |    |                          |    |    |    |                |   |               |   |                      |                     |   |   | 100       |   | 100    |   |
| METHOD OF IMPLEMENTATION:  |  | Contractor |   |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 9 Months       |   |               |   | PRODUCTION LEADTIME: |                     |   |   | 18 Months |   |        |   |
| Contract Dates:  |  | FY 1997    |   |    |    | FY 1998                  |    |    |    | FY 1999        |   |               |   |                      |                     |   |   |           |   |        |   |
| Delivery Date:   |  | FY 1997    |   |    |    | FY 1998                  |    |    |    | FY 1999        |   |               |   |                      |                     |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): OIP Modification to M1A1 COFTs 1-90-05-7877

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 100                  | 1.5 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 100   | 1.5 |     |
| Installation Kits, Nonrecurring |                      | 0.6 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.6 |
| Equipment                       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      | 2.1 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 2.1 |

| INDIVIDUAL MODIFICATION   |         |   |    |    |         |    |    |    |         | Date           |   | February 1998 |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---------|---|----|----|---------|----|----|----|---------|----------------|---|---------------|---------|---|---------------------|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|----------------|--|--|--|--|--|---------------|----|--|--|----|----|----|----|--|--|--|--|--|--|-----|--|--|--|--|--|--|----------------|--|--|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: AEI 1-93-05-4452  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1A1 COFTs  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The Armament Enhancement Initiative (AEI), 120mm tank round modification is required to change the configuration of the M1A1 COFT to the latest configuration of the tank. Addition of new rounds causes switch changes and additional sight reticles in the tank. These changes affect training and can only be provided in the COFT. The COFT will require both hardware and software changes to provide this capability. A key benefit of training with the COFT is in training gunners and commanders on the capability of new rounds with special features without having to fire the actual rounds. Using the existing COFTs without this capability results in severe negative training. The COFT must maintain the same configuration as the tank system it supports.</p>  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
|   |         |   |    |    |         |    |    |    |         | <u>PLANNED</u> |   |               |         |   | <u>ACCOMPLISHED</u> |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| Contractor Test and Evaluation:   |         |   |    |    |         |    |    |    |         | 1Q96           |   |               |         |   | 1Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Operational Test and Evaluation:  |         |   |    |    |         |    |    |    |         | 2Q96           |   |               |         |   | 3Q96                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Inputs</b></td> <td>20</td><td></td><td></td><td>20</td> <td>20</td><td>20</td><td>20</td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td>20</td><td>20</td> <td>10</td><td>10</td><td>20</td><td>20</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  | <b>Inputs</b> | 20 |  |  | 20 | 20 | 20 | 20 |  |  |  |  |  |  |     |  |  |  |  |  |  | <b>Outputs</b> |  |  | 20 | 20 | 10 | 10 | 20 | 20 |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr   | FY 1997 |   |    |    | FY 1998 |    |    |    | FY 1999 |                |   |               | FY 2000 |   |                     |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2 | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Totals</b>   |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   | 20      |   |    | 20 | 20      | 20 | 20 |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  |         |   | 20 | 20 | 10      | 10 | 20 | 20 |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>100</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>100</td> </tr> </tbody> </table>  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  | 100 | <b>Outputs</b> |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  | 100 |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
|   | FY 2002 |   |    |    | FY 2003 |    |    |    | FY 2004 |                |   |               | FY 2005 |   |                     |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2 | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   | 100   |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   | 100   |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 18 Months   |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates: FY 1997 FY 1998 FY 1999   |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date: FY 1997 FY 1998 FY 1999  |         |   |    |    |         |    |    |    |         |                |   |               |         |   |                     |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |     |                |  |  |  |  |  |               |    |  |  |    |    |    |    |  |  |  |  |  |  |     |  |  |  |  |  |  |                |  |  |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): AEI 1-93-05-4452

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |     | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|-------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty               | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 100               | 1.2 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 100   | 1.2 |     |
| Installation Kits, Nonrecurring |                   | 0.5 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.5 |
| Equipment                       |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                   |     |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                   | 1.7 |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.7 |



| INDIVIDUAL MODIFICATION   |         |   |   |   |         |   |   |   |         | Date                |   | February 1998 |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|---|---------|---|---|---|---------|---|---|---|---------|---------------------|---|---------------|---------|---|---|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----------------|---|---|---|---|---|---------------|----|--|--|--|--|---|--|---|--|---|---|---|---|----|---|---|--|--|--|--|----------------|----|--|--|--|---|---|---|--|---|--|---|---|---|---|---|---|--|--|--|--|
| MODIFICATION TITLE: M1 to M1A1 Modification Kits 1-92-06-4419   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 COFTs  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <p>The Conduct of Fire Trainer (COFT) provides the ready capability for precision tank gunnery training while reducing the O&amp;S costs associated with ammunition consumption. The COFT is configured to the tank system it supports.</p> <p>In support of the Abrams fielding schedule, the M1 to M1A1 COFT modification is required to meet the Army's new force structure. All active army divisions, as well as selected National Guard units receiving the M1A1 tank have or will receive the modification. Additionally, the Armor School requires all M1A1 ICOFTs (four COFT crew stations), except for one standard M1 ICOFT and one linked M1 ICOFT used to provide Reserve Component training, be modified (hardware and software) to support basic and advance training of gunners and commanders. This situation establishes a requirement to upgrade the Armor School's M1 ICOFTs to the M1A1 capability.</p>  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <u>PLANNED</u>  |         |   |   |   |         |   |   |   |         | <u>ACCOMPLISHED</u> |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Contractor Test and Evaluation:   |         |   |   |   |         |   |   |   |         | N/A                 |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Initial Operational Test and Evaluation:  |         |   |   |   |         |   |   |   |         | N/A                 |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Installation Schedule:  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> <td>1</td><td>2</td><td>3</td><td>4</td> </tr> <tr> <td><b>Inputs</b></td> <td>19</td><td></td><td></td><td></td> <td></td><td>4</td><td></td><td>4</td> <td></td><td>4</td><td>2</td><td>5</td> <td>3</td><td>8</td><td>2</td><td>2</td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>16</td><td></td><td></td><td></td> <td>1</td><td>1</td><td>5</td><td></td> <td>4</td><td></td><td>4</td><td>2</td> <td>6</td><td>4</td><td>8</td><td>2</td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2  | 3              | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 19 |  |  |  |  | 4 |  | 4 |  | 4 | 2 | 5 | 3 | 8  | 2 | 2 |  |  |  |  | <b>Outputs</b> | 16 |  |  |  | 1 | 1 | 5 |  | 4 |  | 4 | 2 | 6 | 4 | 8 | 2 |  |  |  |  |
| Pr Yr   | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                     |   |               | FY 2000 |   |   |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4             | 1       | 2 | 3 | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Totals</b>   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4             | 1       | 2 | 3 | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Inputs</b>   | 19      |   |   |   |         | 4 |   | 4 |         | 4                   | 2 | 5             | 3       | 8 | 2 | 2 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Outputs</b>  | 16      |   |   |   | 1       | 1 | 5 |   | 4       |                     | 4 | 2             | 6       | 4 | 8 | 2 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>53</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>53</td> </tr> </tbody> </table>   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   | 53 | <b>Outputs</b> |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   | 53 |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|   | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                     |   |               | FY 2005 |   |   |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                   | 3 | 4             | 1       | 2 | 3 | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Inputs</b>   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   | 53    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| <b>Outputs</b>  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   | 53    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 24 Months   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Contract Dates: FY 1997 Oct 97 FY 1998 FY 1999  |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |
| Delivery Date: FY 1997 Oct 99 FY 1998 FY 1999   |         |   |   |   |         |   |   |   |         |                     |   |               |         |   |   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |   |   |   |   |   |   |   |   |   |   |   |   |   |    |                |   |   |   |   |   |               |    |  |  |  |  |   |  |   |  |   |   |   |   |    |   |   |  |  |  |  |                |    |  |  |  |   |   |   |  |   |  |   |   |   |   |   |   |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M1 to M1A1 Modification Kits 1-92-06-4419

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|----------------------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty                  | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits               | 48                   | 1.2 | 5       | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 53    | 1.6 |     |
| Installation Kits, Nonrecurring |                      | 1.0 |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.0 |
| Equipment                       |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Data                            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Other                           |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment               |                      |     |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                      | 2.2 |         | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 2.6 |

| INDIVIDUAL MODIFICATION   |        |                |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |   | Date | February 1998 |        |   |   |
|---|--------|----------------|---|---|---|--------------------------|---|---|---|---------------------|---|---|---|----------------------|---|---|------|---------------|--------|---|---|
| MODIFICATION TITLE: Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost 1-97-05-4526  |        |                |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |   |      |               |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 and M1A1 COFTs   |        |                |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |   |      |               |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Image Generator (IG) and computer subsystems that are presently being used in the COFTs are approaching obsolescence. It is becoming more difficult to obtain parts for these IGs since they are of the early 1980's design. Sustainability is becoming a major issue as repair and replacement parts are becoming more expensive or entirely not available on the commercial market. Likewise, the software designed to run on these components is also difficult to sustain. The goal is to obtain a replacement IG and computer that will provide for cheaper and easier software changes and more cost effective parts and maintenance. This will position the COFT fleet to support tank units and institutions beyond the year 2000.</p> |        |                |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |   |      |               |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |        |                |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |   |      |               |        |   |   |
| <u>PLANNED</u>  |        |                |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |   |   |                      |   |   |      |               |        |   |   |
| Contractor Test and Evaluation:   |        |                |   |   |   |                          |   |   |   | 4Q99                |   |   |   |                      |   |   |      |               |        |   |   |
| Initial Operational Test and Evaluation:  |        |                |   |   |   |                          |   |   |   | 1Q00                |   |   |   |                      |   |   |      |               |        |   |   |
| Installation Schedule:  |        |                |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |   |      |               |        |   |   |
|   | Pr Yr  | FY 1997        |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | FY 2000              |   |   |      | FY 2001       |        |   |   |
|   | Totals | 1              | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3 | 4    | 1             | 2      | 3 | 4 |
| <b>Inputs</b>   |        |                |   |   |   |                          |   | 1 |   |                     |   |   |   | 9                    | 5 |   |      |               |        | 4 |   |
| <b>Outputs</b>  |        |                |   |   |   |                          |   |   |   |                     |   |   |   | 1                    |   | 9 | 2    | 3             |        |   | 2 |
|   |        | FY 2002        |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |   |   | FY 2005              |   |   |      | To            | Totals |   |   |
|   |        | 1              | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3 | 4    | Complete      |        |   |   |
| <b>Inputs</b>   |        |                | 4 |   |   |                          | 4 |   |   |                     |   |   |   |                      |   |   |      | 22            | 49     |   |   |
| <b>Outputs</b>  |        | 2              |   | 2 | 2 | 2                        |   | 2 | 2 |                     |   |   |   |                      |   |   |      | 22            | 49     |   |   |
| METHOD OF IMPLEMENTATION:   |        | Contractor     |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 9 Months            |   |   |   | PRODUCTION LEADTIME: |   |   |      | 18 Months     |        |   |   |
| Contract Dates:   |        | FY 1997 Mar 98 |   |   |   | FY 1998 Mar 98           |   |   |   | FY 1999 Mar 99      |   |   |   |                      |   |   |      |               |        |   |   |
| Delivery Date:  |        | FY 1997        |   |   |   | FY 1998 Sep 99           |   |   |   | FY 1999 Sep 00      |   |   |   |                      |   |   |      |               |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost 1-97-05-4526

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |     |      |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|-----|-------|-----|------|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$  |      |
| RDT&E                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| PROCUREMENT                     |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Kit Quantity                    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Installation Kits               |                   |    |         |     | 1       | 0.1 | 9       | 1.6 | 5       | 0.8 | 4       | 0.8 | 4       | 0.8 | 4       | 0.8 | 22  | 4.3 | 49    | 9.2 |      |
| Installation Kits, Nonrecurring |                   |    |         | 2.8 |         | 2.1 |         | 2.5 |         |     |         |     |         |     |         |     |     |     |       |     | 7.4  |
| Equipment                       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Equipment, Nonrecurring         |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Engineering Change Orders       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Data                            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Training Equipment              |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Support Equipment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Other                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Interim Contractor Support      |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Installation of Hardware        |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| TC Equip-Kits                   |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Total Installment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |      |
| Total Procurement Cos           |                   |    |         | 2.8 |         | 2.2 |         | 4.1 |         | 0.8 |         | 0.8 |         | 0.8 |         | 0.8 |     | 4.3 |       |     | 16.6 |

| INDIVIDUAL MODIFICATION   |  |            |   |   |   |                          |   |   |   | Date                |   | February 1998 |   |                      |   |   |   |           |        |   |   |
|---|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---------------|---|----------------------|---|---|---|-----------|--------|---|---|
| MODIFICATION TITLE: AGTS/SEP Mod 1-97-05-4527   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M1A2 Advanced Gunnery Training System   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br>This funding will modify existing M1A2 Advanced Gunnery Training Simulators to represent the most recent SEP changes to the M1A2. It is cheaper to modify existing training devices than to procure new ones. |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| <u>PLANNED</u>  |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |               |   |                      |   |   |   |           |        |   |   |
| Contractor Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 3Q03                |   |               |   |                      |   |   |   |           |        |   |   |
| Initial Operational Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 4Q03                |   |               |   |                      |   |   |   |           |        |   |   |
| Installation Schedule:  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| Pr Yr   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 2000              |   |   |   | FY 2001   |        |   |   |
| Totals  |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | 1         | 2      | 3 | 4 |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
|   |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |               |   | FY 2005              |   |   |   | To        | Totals |   |   |
|   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | Complete  |        |   |   |
| <b>Inputs</b>   |  |            |   |   |   |                          | 2 |   |   |                     |   |               |   |                      |   |   |   | 12        | 14     |   |   |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   | 2                   |   |               |   |                      |   |   |   | 12        | 14     |   |   |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |               |   | PRODUCTION LEADTIME: |   |   |   | 18 Months |        |   |   |
| Contract Dates:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |        |   |   |
| Delivery Date:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): AGTS/SEP Mod 1-97-05-4527

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |     | TC  |     | TOTAL |    |     |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|-----|-----|-----|-------|----|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty | \$  | Qty   | \$ |     |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Data                            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |     |     |     |       |    |     |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    |         |    | 0.6     |    | 2.4     |    |         | 2.4 |     | 6.0 |       | 14 | 7.2 |

| INDIVIDUAL MODIFICATION   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   | Date |   | February 1998 |   |        |   |
|---|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---|---|----------------------|---|------|---|---------------|---|--------|---|
| MODIFICATION TITLE: Tank Driver Trainer Mod (M1A2 SEP Upgrade) 1-97-05-4528   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |               |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A1 Tank Driver Trainer  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |               |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Tank Driver Trainer (TDT) simulates actual tank performance for beginner and transitioning drivers. It provides a range of motion and simulated environments, terrain and situations which are difficult or impossible for the driver to experience in normal training or operations. The M1A2 driver's compartment and tasks are significantly different from the M1A1. This project upgrades existing M1A1 Tank Driver Trainers at the Armor School to match projected throughput of students as more M1A2s enter the field.</p> |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |               |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |               |   |        |   |
| <u>PLANNED</u>  |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |   |   |                      |   |      |   |               |   |        |   |
| Contractor Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 3Q00                |   |   |   |                      |   |      |   |               |   |        |   |
| Initial Operational Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 4Q00                |   |   |   |                      |   |      |   |               |   |        |   |
| Installation Schedule:  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |               |   |        |   |
| Pr Yr   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | FY 2000              |   |      |   | FY 2001       |   |        |   |
| Totals  |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3    | 4 | 1             | 2 | 3      | 4 |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   | 1 |   |                      |   | 1    |   |               |   |        |   |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |               |   |        | 1 |
|   |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |   |   | FY 2005              |   |      |   | To            |   | Totals |   |
|   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3    | 4 | Complete      |   |        |   |
| <b>Inputs</b>   |  |            |   |   |   |                          |   | 1 |   |                     |   |   |   |                      |   |      |   |               |   |        | 3 |
| <b>Outputs</b>  |  |            |   |   | 1 |                          |   |   |   |                     |   |   | 1 |                      |   |      |   |               |   |        | 3 |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |   |   | PRODUCTION LEADTIME: |   |      |   | 24 Months     |   |        |   |
| Contract Dates:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | Mar 99               |   |      |   |               |   |        |   |
| Delivery Date:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | Sep 01               |   |      |   |               |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Tank Driver Trainer Mod (M1A2 SEP Upgrade) 1-97-05-4528

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |     | TC  |    | TOTAL |     |     |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|---------|-----|-----|----|-------|-----|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| PROCUREMENT                     |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Kit Quantity                    |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Installation Kits               |                   |    |         |    |         |    | 1       | 1.5 | 1       | 1.4 |         |    |         |    | 1       | 0.5 |     |    | 3     | 3.4 |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         | 2.7 |         |     |         |    |         |    |         |     |     |    |       |     | 2.7 |
| Equipment                       |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Engineering Change Orders       |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Data                            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Training Equipment              |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Support Equipment               |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Other                           |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Interim Contractor Support      |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Installation of Hardware        |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Total Installment               |                   |    |         |    |         |    |         |     |         |     |         |    |         |    |         |     |     |    |       |     |     |
| Total Procurement Cos           |                   |    |         |    |         |    |         | 4.2 |         | 1.4 |         |    |         |    |         | 0.5 |     |    |       |     | 6.1 |



| INDIVIDUAL MODIFICATION   |  |            |   |    |   |                          |   |   |   | Date                |   | February 1998 |   |                      |   |   |   |           |        |   |   |
|---|--|------------|---|----|---|--------------------------|---|---|---|---------------------|---|---------------|---|----------------------|---|---|---|-----------|--------|---|---|
| MODIFICATION TITLE: Close Combat Tactical Trainer (CCTT)/SEP Mod 1-97-05-4529   |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| MODELS OF SYSTEMS AFFECTED: Close Combat Tactical Trainer (CCTT)  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br><br>This funding will modify existing Close Combat Tactical Trainer modules to represent the most recent SEP changes to the M1A2. |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| <u>PLANNED</u>  |  |            |   |    |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |               |   |                      |   |   |   |           |        |   |   |
| Contractor Test and Evaluation:   |  |            |   |    |   |                          |   |   |   | 3Q02                |   |               |   |                      |   |   |   |           |        |   |   |
| Initial Operational Test and Evaluation:  |  |            |   |    |   |                          |   |   |   | 4Q02                |   |               |   |                      |   |   |   |           |        |   |   |
| Installation Schedule:  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| Pr Yr   |  | FY 1997    |   |    |   | FY 1998                  |   |   |   | FY 1999             |   |               |   | FY 2000              |   |   |   | FY 2001   |        |   |   |
| Totals  |  | 1          | 2 | 3  | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | 1         | 2      | 3 | 4 |
| <b>Inputs</b>   |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
| <b>Outputs</b>  |  |            |   |    |   |                          |   |   |   |                     |   |               |   |                      |   |   |   |           |        |   |   |
|   |  | FY 2002    |   |    |   | FY 2003                  |   |   |   | FY 2004             |   |               |   | FY 2005              |   |   |   | To        | Totals |   |   |
|   |  | 1          | 2 | 3  | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3             | 4 | 1                    | 2 | 3 | 4 | Complete  |        |   |   |
| <b>Inputs</b>   |  | 14         |   |    |   | 8                        |   |   |   |                     |   |               |   |                      |   |   |   | 12        | 34     |   |   |
| <b>Outputs</b>  |  |            |   | 14 |   |                          |   | 8 |   |                     |   |               |   |                      |   |   |   | 12        | 34     |   |   |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |    |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |               |   | PRODUCTION LEADTIME: |   |   |   | 15 Months |        |   |   |
| Contract Dates:   |  | FY 1997    |   |    |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |        |   |   |
| Delivery Date:  |  | FY 1997    |   |    |   | FY 1998                  |   |   |   | FY 1999             |   |               |   |                      |   |   |   |           |        |   |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont):

Close Combat Tactical Trainer (CCTT)/SEP Mod 1-97-05-4529

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |     |  |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|-----|---------|-----|-----|-----|-------|-----|--|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$  |  |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |    | 14      | 2.5 | 8       | 2.0 | 12  | 2.7 | 34    | 7.2 |  |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    | 0.2     |    | 0.9     |    |         |     |         |     |     |     |       | 1.1 |  |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Data                            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |     |         |     |     |     |       |     |  |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    | 0.2     |    | 0.9     |    | 2.5     |     | 2.0     |     | 2.7 |     |       | 8.3 |  |

| INDIVIDUAL MODIFICATION   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   | Date |   |           |   | February 1998 |    |  |  |
|---|--|------------|---|---|---|--------------------------|---|---|---|---------------------|---|---|---|----------------------|---|------|---|-----------|---|---------------|----|--|--|
| MODIFICATION TITLE: Maintenance Training System (MTS) SEP Mod 1-97-05-4530  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| MODELS OF SYSTEMS AFFECTED: M1A2 Maintenance Trainers   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>This funding will modify existing M1A2 Maintenance Training Systems to represent the most recent SEP changes to the M1A2. |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| <u>PLANNED</u>  |  |            |   |   |   |                          |   |   |   | <u>ACCOMPLISHED</u> |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| Contractor Test and Evaluation:   |  |            |   |   |   |                          |   |   |   | 3Q01                |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| Initial Operational Test and Evaluation:  |  |            |   |   |   |                          |   |   |   | 4Q01                |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| Installation Schedule:  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| Pr Yr   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   | FY 2000              |   |      |   | FY 2001   |   |               |    |  |  |
| Totals  |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3    | 4 | 1         | 2 | 3             | 4  |  |  |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   | 21            |    |  |  |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               | 21 |  |  |
|   |  | FY 2002    |   |   |   | FY 2003                  |   |   |   | FY 2004             |   |   |   | FY 2005              |   |      |   | To        |   | Totals        |    |  |  |
|   |  | 1          | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                   | 2 | 3 | 4 | 1                    | 2 | 3    | 4 | Complete  |   |               |    |  |  |
| <b>Inputs</b>   |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               | 21 |  |  |
| <b>Outputs</b>  |  |            |   |   |   |                          |   |   |   |                     |   |   |   |                      |   |      |   |           |   |               | 21 |  |  |
| METHOD OF IMPLEMENTATION:   |  | Contractor |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months            |   |   |   | PRODUCTION LEADTIME: |   |      |   | 15 Months |   |               |    |  |  |
| Contract Dates:   |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   |                      |   |      |   |           |   |               |    |  |  |
| Delivery Date:  |  | FY 1997    |   |   |   | FY 1998                  |   |   |   | FY 1999             |   |   |   |                      |   |      |   |           |   |               |    |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Maintenance Training System (MTS) SEP Mod 1-97-05-4530

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|-----|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E                           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| PROCUREMENT                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Kit Quantity                    |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Installation Kits               |                   |    |         |    |         |    |         |     |         |     | 21      | 2.6 |         |    |         |    |     |    | 21    | 2.6 |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    | 0.2     |     | 0.3     |     |         |     |         |    |         |    |     |    |       |     |     |
| Equipment                       |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Engineering Change Orders       |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Data                            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Training Equipment              |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Support Equipment               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Other                           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Installation of Hardware        |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Total Installment               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |     |     |
| Total Procurement Cos           |                   |    |         |    |         |    |         | 0.2 |         | 0.3 |         | 3.2 |         |    |         |    |     |    |       |     | 3.7 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: CARRIER, MOD (GB1930)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 566.7       | 53.1    | 43.7    | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3       | 1890.9     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 566.7       | 53.1    | 43.7    | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3       | 1890.9     |
| Initial Spares   | 3.5         |         |         |         |         |         |         |         |         |         |             | 3.5        |
| Total Proc Cost  | 570.2       | 53.1    | 43.7    | 44.7    | 39.4    | 54.5    | 59.4    | 53.6    | 73.6    | 86.1    | 816.3       | 1894.4     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M113 Family of Vehicles (FOV) consists of over 18,000 vehicles, 16 different variants/platforms, in service in U.S. Army units. The M113 FOV is almost one half of the tracked combat vehicle fleet in a mechanized infantry or armor heavy division. The family provides transport for troops, anti-tank, fire direction, smoke, mortar, cargo carrier and command & control systems. The fleet is required for the next 20 plus years and must be modified to increase mobility, survivability and to install operational enhancements. Operation Desert Storm (ODS) highlighted the need to improve the mobility and survivability, chemical protection, driver's night vision, fuel system for Command Post Auxiliary Power Units (APU) for the fleet.

**JUSTIFICATION:**

1. **BLOCK 1 (A3) MODIFICATION:** Provides improvements to enhance mobility and crew survivability. Provides a new 275 Horse Power (HP) turbocharged engine coupled with a new transmission. This powertrain replaces less reliable components and results in reduced O&S costs while increasing mobility to keep up with the M1 and BFVS fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. The intent is to convert vehicles at depot or contractor facilities to the A3 configuration, in the Department of the Army Master Priority List (DAMPL) sequence.

2. **CREW CHEMICAL PROTECTION:** Provides mounting provisions and hardware and the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes blowers, filters, and air line heaters for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Prior to FY98 only mounting provisions were installed during vehicle conversions to the A3 configuration. The intent is to install the complete system during future A3 conversions. Vehicle conversions will be done in Department of the Army Master Priority List (DAMPL) sequence.

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |  |
|--|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | P-1 Item Nomenclature<br>CARRIER, MOD (GB1930) |
|--|--|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| Description              | Classification  | Fiscal Years |             |             |             |             |             |             |             |              | TC             | Total |
|--------------------------|-----------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|----------------|-------|
| OSIP NO.                 |                 | FY 1996      | FY 1997     | FY 1998     | FY 1999     | FY 2000     | FY 2001     | FY 2002     | FY 2003     |              |                |       |
| Crew Chemical Protection |                 |              |             |             |             |             |             |             |             |              |                |       |
| 1-91-05-4311             | Oper Capability | 0.5          | 1.0         | 1.0         | 0.9         | 0.7         | 0.7         | 1.0         | 1.0         | 21.2         | 28.0           |       |
| Block 1                  |                 |              |             |             |             |             |             |             |             |              |                |       |
| 1-84-05-4026             | Oper Capability | 276.9        | 43.7        | 38.4        | 53.6        | 58.7        | 52.9        | 72.6        | 85.1        | 795.1        | 1,477.0        |       |
| <b>Totals</b>            |                 | <b>277.4</b> | <b>44.7</b> | <b>39.4</b> | <b>54.5</b> | <b>59.4</b> | <b>53.6</b> | <b>73.6</b> | <b>86.1</b> | <b>816.3</b> | <b>1,505.0</b> |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |
|                          |                 |              |             |             |             |             |             |             |             |              |                |       |

| INDIVIDUAL MODIFICATION  |        |                  |    |    |    |                          |    |    |    | Date          |    |             |    |                      |    |    |    |            |        |    |    |
|--|--------|------------------|----|----|----|--------------------------|----|----|----|---------------|----|-------------|----|----------------------|----|----|----|------------|--------|----|----|
|  |        |                  |    |    |    |                          |    |    |    | February 1998 |    |             |    |                      |    |    |    |            |        |    |    |
| MODIFICATION TITLE: Crew Chemical Protection 1-91-05-4311  |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
| MODELS OF SYSTEMS AFFECTED: M113A3, M577A3, M1068A3  |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
| DESCRIPTION / JUSTIFICATION:   |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
| <p>Provides mounting provisions and hardware and the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system include blowers, filters, air line heaters and hoses for use with crew issued vent face masks. The installed system permits vehicle operation in an NBC environment. Prior to FY 98 only mounting provisions were installed during vehicle conversions to the A3 configuration. The intent is to install complete system during future A3 conversions. Vehicle conversions to be done in the Department of the Army Master Priority List (DAMPL) sequence.</p> |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
| <u>PLANNED</u> <u>ACCOMPLISHED</u>   |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
| TDP Available:   |        |                  |    |    |    |                          |    |    |    |               |    | February 92 |    |                      |    |    |    |            |        |    |    |
| Installation Schedule:   |        |                  |    |    |    |                          |    |    |    |               |    |             |    |                      |    |    |    |            |        |    |    |
|  | Pr Yr  | FY 1997          |    |    |    | FY 1998                  |    |    |    | FY 1999       |    |             |    | FY 2000              |    |    |    | FY 2001    |        |    |    |
|  | Totals | 1                | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1             | 2  | 3           | 4  | 1                    | 2  | 3  | 4  | 1          | 2      | 3  | 4  |
| <b>Inputs</b>  |        |                  |    |    |    |                          |    |    |    | 60            | 60 | 60          | 60 | 54                   | 54 | 54 | 54 | 45         | 45     | 45 | 45 |
| <b>Outputs</b>   |        |                  |    |    |    |                          |    |    |    |               | 60 | 60          | 60 | 60                   | 54 | 54 | 54 | 54         | 45     | 45 | 45 |
|  |        | FY 2002          |    |    |    | FY 2003                  |    |    |    | FY 2004       |    |             |    | FY 2005              |    |    |    | To         | Totals |    |    |
|  |        | 1                | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1             | 2  | 3           | 4  | 1                    | 2  | 3  | 4  | Complete   |        |    |    |
| <b>Inputs</b>  |        | 50               | 51 | 51 | 51 | 60                       | 60 | 60 | 60 | 60            | 60 | 60          | 60 |                      |    |    |    | 3391       | 4711   |    |    |
| <b>Outputs</b>   |        | 46               | 50 | 51 | 51 | 51                       | 60 | 60 | 60 | 60            | 60 | 60          | 60 | 60                   |    |    |    | 3391       | 4711   |    |    |
| METHOD OF IMPLEMENTATION:  |        | Depot/Contractor |    |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 3 Months      |    |             |    | PRODUCTION LEADTIME: |    |    |    | 10 Months  |        |    |    |
| Contract Dates:  |        | FY 1997          |    |    |    | FY 1998                  |    |    |    | January 98    |    |             |    | FY 1999              |    |    |    | January 99 |        |    |    |
| Delivery Date:   |        | FY 1997          |    |    |    | FY 1998                  |    |    |    | October 98    |    |             |    | FY 1999              |    |    |    | October 99 |        |    |    |

| INDIVIDUAL MODIFICATION                   |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | Date                                  |      | February 1998 |      |      |
|---|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------------------------------------|------|---------------|------|------|
| MODIFICATION TITLE (Cont):                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | Crew Chemical Protection 1-91-05-4311 |      |               |      |      |
| FINANCIAL PLAN: (\$ in Millions)          |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC                                    |      | TOTAL         |      |      |
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty                                   | \$   | Qty           | \$   |      |
| RDT&E                                     |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| PROCUREMENT                               |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Kit Quantity                              |                   |     |         |     | 240     |     | 216     |     | 181     |     | 203     |     | 240     |     | 240     |     | 3391                                  |      | 4711          |      |      |
| Installation Kits                         |                   |     |         |     |         | 0.6 |         | 0.6 |         | 0.5 |         | 0.6 |         | 0.8 |         | 0.8 |                                       | 16.9 |               |      | 20.8 |
| Installation Kits, Nonrecurring Equipment |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Equipment, Nonrecurring                   |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Engineering Change Orders                 |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Data                                      |                   | 0.5 |         | 1.0 |         | 0.4 |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      | 1.9  |
| Training Equipment                        |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Support Equipment                         |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Other                                     |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Interim Contractor Support                |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| Installation of Hardware                  |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| FY 1996 & Prior Eqpt -- Kits              |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| FY 1997 Eqpt -- Kits                      |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |                                       |      |               |      |      |
| FY 1998 Eqpt -- Kits                      |                   |     |         |     |         |     | 240     | 0.3 |         |     |         |     |         |     |         |     |                                       |      |               | 240  | 0.3  |
| FY 1999 Eqpt -- Kits                      |                   |     |         |     |         |     |         |     | 216     | 0.2 |         |     |         |     |         |     |                                       |      |               | 216  | 0.2  |
| FY 2000 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         | 181 | 0.1     |     |         |     |         |     |                                       |      |               | 181  | 0.1  |
| FY 2001 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         |     |         | 203 | 0.2     |     |         |     |                                       |      |               | 203  | 0.2  |
| FY 2002 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         |     |         |     |         | 240 | 0.2     |     |                                       |      |               | 240  | 0.2  |
| FY 2003 Eqpt -- kits                      |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         | 240 | 0.2                                   |      |               | 240  | 0.2  |
| TC Equip-Kits                             |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     | 3391                                  | 4.1  |               | 3391 | 4.1  |
| Total Installment                         |                   |     |         |     |         |     | 240     | 0.3 | 216     | 0.2 | 181     | 0.1 | 203     | 0.2 | 240     | 0.2 | 3631                                  | 4.3  | 4711          | 5.3  |      |
| Total Procurement Cos                     |                   | 0.5 |         | 1.0 |         | 1.0 |         | 0.9 |         | 0.7 |         | 0.7 |         | 1.0 |         | 1.0 |                                       | 21.2 |               |      | 28.0 |



| INDIVIDUAL MODIFICATION  |        |                  |    |    |    |                          |     |     |     | Date                |    | February 1998 |    |                      |    |    |    |           |        |    |    |
|--|--------|------------------|----|----|----|--------------------------|-----|-----|-----|---------------------|----|---------------|----|----------------------|----|----|----|-----------|--------|----|----|
| MODIFICATION TITLE: <b>Block 1 1-84-05-4026</b>  |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| MODELS OF SYSTEMS AFFECTED: M113A2, M577A2, M981, M1059, M1064, M1068, OSV, M58  |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| DESCRIPTION / JUSTIFICATION:<br><p>Provides improvements to enhance mobility and crew survivability. Provides a new 275 Horse Power (HP) turbocharged engine coupled with a new transmission. This powertrain replaces less reliable components and results in reduced O&amp;S costs while increasing mobility to keep up with the M1 and BFVS fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. The intent is to convert vehicles at depot or contractor facilities to the A3 configuration, in the Department of the Army Master Priority List (DAMPL) sequence.</p> |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
| <u>PLANNED</u>   |        |                  |    |    |    |                          |     |     |     | <u>ACCOMPLISHED</u> |    |               |    |                      |    |    |    |           |        |    |    |
| IPR Production Decision:   |        |                  |    |    |    |                          |     |     |     | May 86              |    |               |    |                      |    |    |    |           |        |    |    |
| TDP Available:   |        |                  |    |    |    |                          |     |     |     | June 86             |    |               |    |                      |    |    |    |           |        |    |    |
| Installation Schedule:   |        |                  |    |    |    |                          |     |     |     |                     |    |               |    |                      |    |    |    |           |        |    |    |
|  | Pr Yr  | FY 1997          |    |    |    | FY 1998                  |     |     |     | FY 1999             |    |               |    | FY 2000              |    |    |    | FY 2001   |        |    |    |
|  | Totals | 1                | 2  | 3  | 4  | 1                        | 2   | 3   | 4   | 1                   | 2  | 3             | 4  | 1                    | 2  | 3  | 4  | 1         | 2      | 3  | 4  |
| <b>Inputs</b>  | 379    |                  |    | 40 | 91 | 154                      | 164 | 174 | 155 | 60                  | 60 | 60            | 60 | 54                   | 54 | 54 | 54 | 45        | 45     | 45 | 46 |
| <b>Outputs</b>   | 379    |                  |    |    | 97 | 134                      | 149 | 150 | 149 | 99                  | 60 | 60            | 60 | 60                   | 54 | 54 | 54 | 54        | 45     | 45 | 45 |
|  |        | FY 2002          |    |    |    | FY 2003                  |     |     |     | FY 2004             |    |               |    | FY 2005              |    |    |    | To        | Totals |    |    |
|  |        | 1                | 2  | 3  | 4  | 1                        | 2   | 3   | 4   | 1                   | 2  | 3             | 4  | 1                    | 2  | 3  | 4  | Complete  |        |    |    |
| <b>Inputs</b>  | 50     | 51               | 51 | 51 | 60 | 60                       | 60  | 60  | 60  | 60                  | 60 | 60            | 60 |                      |    |    |    | 2168      | 4645   |    |    |
| <b>Outputs</b>   | 46     | 50               | 51 | 51 | 51 | 60                       | 60  | 60  | 60  | 60                  | 60 | 60            | 60 | 60                   |    |    |    | 2168      | 4645   |    |    |
| METHOD OF IMPLEMENTATION:  |        | Depot/Contractor |    |    |    | ADMINISTRATIVE LEADTIME: |     |     |     | 3 Months            |    |               |    | PRODUCTION LEADTIME: |    |    |    | 10 Months |        |    |    |
| Contract Dates:  |        | FY 1997 March 97 |    |    |    | FY 1998 January 98       |     |     |     | FY 1999 January 99  |    |               |    |                      |    |    |    |           |        |    |    |
| Delivery Date:   |        | FY 1997 June 97  |    |    |    | FY 1998 October 98       |     |     |     | FY 1999 October 99  |    |               |    |                      |    |    |    |           |        |    |    |

| INDIVIDUAL MODIFICATION          |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | Date                 |       | February 1998 |        |
|----------------------------------|-------------------|-------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|----------------------|-------|---------------|--------|
| MODIFICATION TITLE (Cont):       |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | Block 1 1-84-05-4026 |       |               |        |
| FINANCIAL PLAN: (\$ in Millions) |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
|                                  | FY 1996 and Prior |       | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |      | FY 2001 |      | FY 2002 |      | FY 2003 |      | TC                   |       | TOTAL         |        |
|                                  | Qty               | \$    | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty                  | \$    | Qty           | \$     |
| RDT&E                            |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| PROCUREMENT                      |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Kit Quantity                     | 2030              |       | 304     |      | 240     |      | 216     |      | 181     |      | 203     |      | 240     |      | 240     |      | 2168                 |       | 5822          |        |
| Installation Kits                |                   | 223.4 |         | 31.2 |         | 25.9 |         | 21.1 |         | 22.6 |         | 25.4 |         | 35.8 |         | 36.3 |                      | 339.1 |               | 760.8  |
| Installation Kits, Nonrecurring  |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Equipment                        |                   | 3.4   |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               | 3.4    |
| Equipment, Nonrecurring          |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Engineering Change Orders        |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Data                             |                   | 40.2  |         | 2.0  |         | 2.3  |         | 3.6  |         | 4.3  |         | 4.4  |         | 4.6  |         | 5.0  |                      | 46.7  |               | 113.1  |
| Training Equipment               |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Support Equipment                |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Other                            |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Interim Contractor Support       |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| Pre-Conversion                   |                   |       |         |      |         |      |         | 19.5 |         | 22.2 |         | 14.4 |         | 22.1 |         | 32.1 |                      | 290.0 |               | 400.3  |
| FDT                              |                   | 0.1   |         | 0.1  |         | 0.5  |         | 1.0  |         | 1.0  |         | 1.0  |         | 1.2  |         | 1.5  |                      | 14.0  |               | 20.4   |
| TPF                              |                   | 2.6   |         | 0.5  |         | 1.0  |         | 1.3  |         | 1.8  |         | 1.9  |         | 2.1  |         | 2.3  |                      | 21.5  |               | 35.0   |
| Installation of Hardware         |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      |                      |       |               |        |
| FY 1996 & Prior Eqpt -- Kits     | 379               | 7.2   | 474     | 9.9  |         |      |         |      |         |      |         |      |         |      |         |      |                      |       | 853           | 17.1   |
| FY 1997 Eqpt -- Kits             |                   |       |         |      | 304     | 8.7  |         |      |         |      |         |      |         |      |         |      |                      |       | 304           | 8.7    |
| FY 1998 Eqpt -- Kits             |                   |       |         |      |         |      | 240     | 7.1  |         |      |         |      |         |      |         |      |                      |       | 240           | 7.1    |
| FY 1999 Eqpt -- Kits             |                   |       |         |      |         |      |         |      | 216     | 6.8  |         |      |         |      |         |      |                      |       | 216           | 6.8    |
| FY 2000 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      | 181     | 5.8  |         |      |         |      |                      |       | 181           | 5.8    |
| FY 2001 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      |         |      | 203     | 6.8  |         |      |                      |       | 203           | 6.8    |
| FY 2002 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      |         |      |         |      | 240     | 7.9  |                      |       | 240           | 7.9    |
| FY 2003 Eqpt -- kits             |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | 240                  | 7.9   | 240           | 7.9    |
| TC Equip-Kits                    |                   |       |         |      |         |      |         |      |         |      |         |      |         |      |         |      | 2168                 | 75.9  | 2168          | 75.9   |
| Total Installment                | 379               | 7.2   | 474     | 9.9  | 304     | 8.7  | 240     | 7.1  | 216     | 6.8  | 181     | 5.8  | 203     | 6.8  | 240     | 7.9  | 2408                 | 83.8  | 4645          | 144.0  |
| Total Procurement Cos            |                   | 276.9 |         | 43.7 |         | 38.4 |         | 53.6 |         | 58.7 |         | 52.9 |         | 72.6 |         | 85.1 |                      | 795.1 |               | 1477.0 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: FIST VEHICLE (MOD) (GZ2300)

Program Elements for Code B Items: 0203735A  
 Code: B  
 Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         | 19      | 27      | 49      | 56      | 60      | 87      | 267         | 565        |
| Gross Cost       | 372.8       | 0.0     | 0.0     | 0.0     | 15.6    | 20.7    | 43.5    | 47.4    | 50.1    | 62.3    | 202.1       | 814.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 372.8       | 0.0     | 0.0     | 0.0     | 15.6    | 20.7    | 43.5    | 47.4    | 50.1    | 62.3    | 202.1       | 814.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 372.8       | 0.0     | 0.0     | 0.0     | 15.6    | 20.7    | 43.5    | 47.4    | 50.1    | 62.3    | 202.1       | 814.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         | .8      | .8      | .9      | .8      | .8      | .7      | .8          |            |

**DESCRIPTION:** The Bradley Fire Support Vehicle (BFIST) integrates Mission Equipment Packages into a Bradley Fighting Vehicle to support heavy maneuver force operations. The BFIST replaces the aging M981 Fire Support Vehicle for fire mission planning, support and execution for maneuver company commanders. The Fire Support Team is attached to a mechanized infantry or armor company and is primarily responsible for developing and executing fire support plans that enable success on the battlefield. The BFIST allows fire support operations to be performed on the battlefield in vehicles with the same signature, survivability, and mobility as other Bradley maneuver units.

**JUSTIFICATION:** The current Fire Support Vehicle M981 was unable to maintain the operational tempo of Bradley /Abrams equipped maneuver forces during Operation Desert Storm (ODS). Additionally, the M981 displayed a number of operational deficiencies and shortcomings remedied by the BFIST design. The BFIST provides synchronization of combined arms operations.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |             |                   | P-1 Line Item Nomenclature:<br>FIST VEHICLE (MOD) (GZ2300) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|--|-------------|-------------------|--|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| <b>WTCV<br/>Cost Elements</b>                     | ID<br>CD | <b>FY 96</b>   |             |                   | <b>FY 97</b>   |             |                   | <b>FY 98</b>        |             |                   | <b>FY 99</b>           |             |                   |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| Hardware Cost                                     |          |  |             |                   |  |             |                   |                     |             |                   |                        |             |                   |
| 1. Vehicle Upgrade                                |          |  |             |                   |  |             | 10994             | 19                  | 579         | 10209             | 27                     | 378         |                   |
| 2. Pre-Mod Depot Maintenance                      |          |  |             |                   |  |             |                   |                     |             | 5969              | 27                     | 221         |                   |
| <b>SUBTOTAL</b>                                   |          |  |             |                   |  |             | <b>10994</b>      |                     |             | <b>16178</b>      |                        |             |                   |
| Non Recurring Production                          |          |  |             |                   |  |             |                   |                     |             |                   |                        |             |                   |
| 3. Engineering Contractor                         |          |  |             |                   |  |             | 2610              |                     |             | 1790              |                        |             |                   |
| 4. Engineering Government                         |          |  |             |                   |  |             | 418               |                     |             | 375               |                        |             |                   |
| 5. Program Management Administration              |          |  |             |                   |  |             | 239               |                     |             | 215               |                        |             |                   |
| 6. Reimbursable Matrix Support                    |          |  |             |                   |  |             | 896               |                     |             | 804               |                        |             |                   |
| 7. Fielding                                       |          |  |             |                   |  |             | 438               |                     |             | 320               |                        |             |                   |
| 8. Refurbish Test Vehicles                        |          |  |             |                   |  |             |                   |                     |             | 1038              |                        |             |                   |
| <b>SUBTOTAL</b>                                   |          |  |             |                   |  |             | <b>4601</b>       |                     |             | <b>4542</b>       |                        |             |                   |
| <b>TOTAL</b>                                      |          |  |             |                   |  |             | <b>15595</b>      |                     |             | <b>20720</b>      |                        |             |                   |

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
February 1998

Appropriation / Budget Activity/Serial No:  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature:  
FIST VEHICLE (MOD) (GZ2300)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location          | Contract Method and Type | Location of PCO                              | Award Date       | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|----------------------------------|--------------------------|--|------------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Vehicle Upgrade<br>FY 98<br>FY 99 | UDLP, York, PA<br>UDLP, York, PA | SS/FFP<br>SS/FFP         | USATACOM, Warren, MI<br>USATACOM, Warren, MI | Dec-97<br>Nov-98 | May-99<br>Jan-00       | 19<br>27 | 579<br>378      |                  |                  |                |

REMARKS:

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |                  |       |               |                       |                     | P-1 Item Nomenclature: FIST VEHICLE (MOD) (GZ2300) |              |                  |                    |  |     |     |     |     |     |     |     |                  | Date: February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----------------|------------------|-------|---------------|-----------------------|---------------------|--|--------------|------------------|--------------------|--|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR             | FY               | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98                                     |              |                  |                    |  |     |     |     |     |     |     |     | Fiscal Year 99   |                     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |                 |                  |       |               |                       |                     | Calendar Year 98                                   |              |                  |                    |  |     |     |     |     |     |     |     | Calendar Year 99 |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | OCT  | NOV          | DEC              | JAN                | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Upgrade                    |                 |                  |       |               |                       |                     |  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 98            | A     | 19            | 0                     | 19                  |  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     | 12  |     |     |           |
|                                       | 1               | FY 99            | A     | 27            | 0                     | 27                  |  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     | 27  |     |     |           |
| Total                                 |                 |                  |       |               |                       |                     |  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     | 39  |     |     |           |
|                                       |                 |                  |       |               |                       |                     | OCT  | NOV          | DEC              | JAN                | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                 | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| MFR                                   | NAME / LOCATION | PRODUCTION RATES |       |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME                                    |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 | MIN.             | 1-8-5 | MAX.          |                       |                     | Prior 1 Oct.                                       | After 1 Oct. |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | UDLP, York, PA  | *                | *     | *             |                       | 1                   | INITIAL  |              |                  | 20                 | REMARKS<br>Production Rates To Be Determined:<br>Due to vehicles being new production. UDLP is downsizing/reorganizing, and designing a multi product approach to production. When these initiatives are settled, some useful Min/Max rates may be possible. |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |  |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |     |           |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |                  |       |               |                       |                     | P-1 Item Nomenclature: FIST VEHICLE (MOD) (GZ2300) |              |                  |                    |         |     |  |     |     |     |     |     | Date: February 1998 |     |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----------------|------------------|-------|---------------|-----------------------|---------------------|--|--------------|------------------|--------------------|---------|-----|--|-----|-----|-----|-----|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR             | FY               | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00                                     |              |                  |                    |         |     |  |     |     |     |     |     | Fiscal Year 01      |     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |                 |                  |       |               |                       |                     | Calendar Year 00                                   |              |                  |                    |         |     |  |     |     |     |     |     | Calendar Year 01    |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | OCT  | NOV          | DEC              | JAN                | FEB     | MAR | APR  | MAY | JUN | JUL | AUG | SEP | OCT                 | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Upgrade                    |                 |                  |       |               |                       |                     |  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 98            | A     | 19            | 7                     | 12                  | 4  | 4            | 4                |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 99            | A     | 27            | 0                     | 27                  |  |              |                  | 2                  | 4       | 4   | 4  | 4   | 4   | 5   |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
| Total                                 |                 |                  |       |               |                       |                     | 4  | 4            | 4                | 2                  | 4       | 4   | 4  | 4   | 4   | 5   |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | OCT  | NOV          | DEC              | JAN                | FEB     | MAR | APR  | MAY | JUN | JUL | AUG | SEP | OCT                 | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| MFR                                   | NAME / LOCATION | PRODUCTION RATES |       |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME                                    |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 | MIN.             | 1-8-5 | MAX.          |                       |                     | Prior 1 Oct.                                       | After 1 Oct. |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | UDLP, York, PA  | *                | *     | *             |                       | 1                   | INITIAL  |              |                  | 3                  | 17      | 20  | * Production Rates To Be Determined: Due to vehicles being new production. UDLP is downsizing/reorganizing, and designing a multi product approach to production. When these initiatives are settled, some useful Min/Max rates may be possible. |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | INITIAL  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | REORDER  |              |                  |                    |         |     |  |     |     |     |     |     |                     |     |     |     |     |     |     |     |     |     |     |     |           |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BFVS SERIES (MOD) (GZ2400)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 503.1       | 90.2    | 88.6    | 113.6   | 60.0    | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0         | 935.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 503.1       | 90.2    | 88.6    | 113.6   | 60.0    | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0         | 935.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 503.1       | 90.2    | 88.6    | 113.6   | 60.0    | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0         | 935.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The funds appropriated, budgeted, and programmed in this budget line will provide for the procurement and application of modification kits for the Bradley Fighting Vehicle. The Operation Desert Storm improvements are 6 ECPs which will correct deficiencies identified in Operation Desert Storm and include: Laser Range Finder, Position Navigation System, Equipment Restow Improvement, Combat Identification System, Drivers Vision Enhancer and Missile Countermeasure Device. The A1 to A2 conversion effort increases the vehicle survivability and brings the vehicle up to the current A2 configuration, with the addition of the High Survivability Kit and the 600HP power pack. Operational improvements are the Transmission Electronic Controller, the Armament Control Unit Pillow Block, the Vehicle Intercommunications System, and Armor Tiles. One safety mod, the A2 Card Retrofit, will prevent inadvertent TOW missile launch. The A2 ODS Applique(+) modification will integrate Bradley Fighting Vehicles with the Army's Applique computer system to improve situational awareness. Additionally, there is the Presidentially directed HALON Replacement Program. Most of these modifications will be applied concurrently in "blocks" to reduce application cost and inconvenience to the unit.

**JUSTIFICATION:** The programs in these P-Forms were initiated to meet requirements identified to correct deficiencies identified in Operation Desert Storm and to improve the lethality, survivability, mobility and situational awareness of the Bradley Fighting Vehicle. Reduced Bradley Fighting Vehicle capability, survivability, and mobility will occur if these modifications are delayed or reduced.



| Exhibit P-40M Budget Item Justification Sheet  |                        |              |         |                                |         |         |         |         |         | Date  |       |
|--|------------------------|--------------|---------|--------------------------------|---------|---------|---------|---------|---------|---|-------|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                        |              |         |                                |         |         |         |         |         | P-1 Item Nomenclature<br>BFVS SERIES (MOD) (GZ2400) |       |
| Program Elements for Code B Items  |                        |              | Code    | Other Related Program Elements |         |         |         |         |         |   |       |
| Description  |                        | Fiscal Years |         |                                |         |         |         |         |         |   |       |
| OSIP NO.   | Classification         | FY 1996      | FY 1997 | FY 1998                        | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| A1-A2 Conversion   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-84-05-4038   | Oper. Capability       | 347.3        | 16.4    | 16.8                           | 13.6    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 394.1 |
| A2 ODS Mods  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-92-05-4404   | Oper. Capability       | 67.2         | 49.6    | 28.9                           | 31.9    | 1.6     | 0.0     | 0.0     | 0.0     | 0.0   | 179.2 |
| Transmission Electronic Controller (TEC)   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-90-05-4282   | Oper. Capability       | 5.8          | 4.1     | 3.6                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 13.5  |
| ACU Pillow Block Mod   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-91-05-4314   | Oper. Capability       | 5.8          | 0.9     | 0.6                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 7.2   |
| Vehicle Intercom System  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-90-05-4284   | Oper. Capability       | 8.4          | 3.0     | 3.9                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 15.3  |
| DECA   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-93-05-4441   | Oper. Capability       | 11.5         | 5.7     | 1.4                            | 2.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 21.1  |
| HALON Replacement  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-92-05-4422   | Legisl. Compliance     | 3.7          | 0.6     | 4.7                            | 0.1     | 0.1     | 0.0     | 0.0     | 0.0     | 0.0   | 9.2   |
| Armor Tiles  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-84-05-4038   | Oper. Capability       | 40.6         | 32.7    | 0.0                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 73.3  |
| A2 Card Retrofit   |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-96-05-4517   | safety                 | 0.0          | 0.8     | 0.0                            | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 0.8   |
| Suite of Survivability Enhancement Systems (No P3a Set)  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-96-05-4514   | Oper. Capability       | 0.0          | 0.0     | 0.0                            | 0.0     | 0.0     | 7.4     | 4.0     | 7.6     | 0.0   | 19.0  |
| A2 ODS Applique  |                        |              |         |                                |         |         |         |         |         |   |       |
| 1-98-05-4539   | Operational Capability | 0.0          | 0.0     | 0.0                            | 10.9    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0   | 10.9  |
| Totals   |                        | 490.3        | 113.6   | 60.0                           | 59.0    | 1.7     | 7.4     | 4.0     | 7.6     | 0.0   | 743.6 |

| INDIVIDUAL MODIFICATION  |         |    |    |    |         |    |    |    |         | Date           |    | February 1998       |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|--|---------|----|----|----|---------|----|----|----|---------|----------------|----|---------------------|---------|-------|---------|---|-------------|--------|---------|---|------|------|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|-----|----|----|----|----|----|----|----|----|----|----|--|--|--|------|----------------|--|--|--|--|--|----------------|-----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|------|--|--|--|--|--|
| MODIFICATION TITLE: A1-A2 Conversion 1-84-05-4038  |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M2A1 (IFV) / M3A1 (CFV)  |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br>The BFVS conversion effort converts the A1 configuration to an A2 configuration.<br>The conversion effort includes:<br>1. High Survivability (HS) Kit which will enhance vehicle survivability through the application of alternate armor and selective use of crew compartment spall liners for increased protection against threat from frontal attack. The HS kit also contains other associated changes such as restowage, swim curtain, IFV firing ports, and M240 gun upright.<br>2. The 600HP power pack, which includes the 600 HP engine and the reliability improved 500-3 Transmission which eliminates the adverse impact of increased vehicle weight on vehicle performance and reliability, resulting from High Survivability changes.   |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|  |         |    |    |    |         |    |    |    |         | <u>PLANNED</u> |    | <u>ACCOMPLISHED</u> |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Preliminary Design Review:   |         |    |    |    |         |    |    |    |         | NA             |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Critical Design Review:  |         |    |    |    |         |    |    |    |         | NA             |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Contractor Test and Evaluation:  |         |    |    |    |         |    |    |    |         | NA             |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Development Test and Evaluation:   |         |    |    |    |         |    |    |    |         | NA             |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |         |    |    |    |         |    |    |    |         | NA             |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| IPR Production Decision  |         |    |    |    |         |    |    |    |         | 3Q89           |    | 3Q89                |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| TDP Available:   |         |    |    |    |         |    |    |    |         | 3Q89           |    | 3Q89                |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Installation Schedule:   |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td>938</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>896</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td>42</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |    |    |    |         |    |    |    |         |                |    |                     |         | Pr Yr | FY 1997 |   |             |        | FY 1998 |   |      |      | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> | 938 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |  |  |  |      |                |  |  |  |  |  | <b>Outputs</b> | 896 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 |  |  |  |  |      |  |  |  |  |  |
| Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |    |    | FY 1999 |                |    |                     | FY 2000 |       |         |   | FY 2001     |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|  | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2              | 3  | 4                   | 1       | 2     | 3       | 4 | 1           | 2      | 3       | 4 |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Inputs</b>  | 938     | 42 | 42 | 42 | 42      | 42 | 42 | 42 | 42      | 42             | 42 |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Outputs</b>   | 896     | 42 | 42 | 42 | 42      | 42 | 42 | 42 | 42      | 42             | 42 |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1358</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1358</td> </tr> </tbody> </table>  |         |    |    |    |         |    |    |    |         |                |    |                     |         |       | FY 2002 |   |             |        | FY 2003 |   |      |      | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  | 1358 | <b>Outputs</b> |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  | 1358 |  |  |  |  |  |
|  | FY 2002 |    |    |    | FY 2003 |    |    |    | FY 2004 |                |    |                     | FY 2005 |       |         |   | To Complete | Totals |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
|  | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2              | 3  | 4                   | 1       | 2     | 3       | 4 |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Inputs</b>  |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   | 1358 |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| <b>Outputs</b>   |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      | 1358 |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Depot Conversion      ADMINISTRATIVE LEADTIME: 6 Months      PRODUCTION LEADTIME: 12 Months  |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Contract Dates: FY 1997 Jan 97      FY 1998      FY 1999   |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |
| Delivery Date: FY 1997 Jan 98      FY 1998      FY 1999  |         |    |    |    |         |    |    |    |         |                |    |                     |         |       |         |   |             |        |         |   |      |      |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |     |    |    |    |    |    |    |    |    |    |    |  |  |  |      |                |  |  |  |  |  |                |     |    |    |    |    |    |    |    |    |    |    |  |  |  |  |      |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): A1-A2 Conversion 1-84-05-4038

FINANCIAL PLAN: (\$ in Millions)

|                                | FY 1996<br>and Prior |       | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |       |
|--------------------------------|----------------------|-------|---------|------|---------|------|---------|------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-------|
|                                | Qty                  | \$    | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |       |
| RDT&E                          |                      | 115.6 |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      | 115.6 |
| PROCUREMENT                    |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Kit Quantity                   |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits              |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits Nonrecurring |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| 600 HP Engine                  | 1317                 | 45.6  | 41      | 1.9  |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       | 1358 | 47.5  |
| 500-3 Transmission             | 1358                 | 39.2  |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       | 1358 | 39.2  |
| High Survivability kits        | 1358                 | 187.9 |         | 2.5  |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       | 1358 | 190.4 |
| Engineering Change Orders      |                      | 0.9   |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      | 0.9   |
| Training Equipment             |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Support Equipment              |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Other                          |                      | 1.6   |         | 0.8  |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      | 2.5   |
| Interim Contractor Support     |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Pre-mod Depot Maintenance      |                      |       |         |      |         |      |         | 6.2  |         |    |         |    |         |    |         |    |     |    |       |      | 6.2   |
| Installation of Hardware       |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1996 & Prior Eqpt -- Kits   | 977                  | 72.1  | 136     | 11.2 | 168     | 16.8 | 36      | 3.4  |         |    |         |    |         |    |         |    |     |    |       | 1317 | 103.5 |
| FY 1997 Eqpt -- Kits           |                      |       |         |      |         |      | 41      | 3.9  |         |    |         |    |         |    |         |    |     |    |       | 41   | 3.9   |
| FY 1998 Eqpt -- Kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1999 Eqpt -- Kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2000 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2001 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2002 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2003 Eqpt -- kits           |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| TC Equip-Kits                  |                      |       |         |      |         |      |         |      |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Total Installment              | 977                  | 72.1  | 136     | 11.2 | 168     | 16.8 | 77      | 7.3  |         |    |         |    |         |    |         |    |     |    |       | 1358 | 107.4 |
| Total Procurement Cos          |                      | 347.3 |         | 16.4 |         | 16.8 |         | 13.6 |         |    |         |    |         |    |         |    |     |    |       |      | 394.1 |

| INDIVIDUAL MODIFICATION  |  |  |  |  |  |  |  |  |  | Date                |  | February 1998 |  |  |  |                |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|---------------------|--|---------------|--|--|--|----------------|--|--|--|--|--|
| MODIFICATION TITLE: A2 ODS Mods 1-92-05-4404   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M2A2/M3A2  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Six vehicle improvements (ECP's) which will correct deficiencies identified in Operation Desert Storm. These increase vehicle lethality and survivability and situational awareness. Additionally, included in this effort are Armored Hatches to further improve vehicle survivability. |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| a. Laser Range Finder: will give the BFVS a first burst on target capability and reduce the time required to acquire and kill a target.  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| b. Position Navigation System: Global Positioning System (GPS) integrating hardware and a self calibrating digital compass. This will enable the Bradley commander to determine his exact location at all times and determine the heading and distance to any location.                  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| c. Equipment Restow Improvement: Improves the method of stowing internal and external equipment.   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| d. Combat Identification System (CID): Provides integration hardware for the passive CID system that will provide visual and thermal signatures detectable between ground to ground vehicles and from air to ground.   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| e. Driver's Thermal Viewer: Increases the driver's ability to see through battlefield obscurants such as dust, fog and smoke during night and day.   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| f. Missile Countermeasure Device: Provides additional protection against a variety of anti tank missiles.  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | <u>ACCOMPLISHED</u> |  |               |  |  |  | <u>PLANNED</u> |  |  |  |  |  |
| Preliminary Design Review:   |  |  |  |  |  |  |  |  |  | 4Q93                |  |               |  |  |  | 4Q93           |  |  |  |  |  |
| Critical Design Review:  |  |  |  |  |  |  |  |  |  | 2Q94                |  |               |  |  |  | 2Q94           |  |  |  |  |  |
| Contractor Test and Evaluation:  |  |  |  |  |  |  |  |  |  | 3Q94                |  |               |  |  |  | 3Q94           |  |  |  |  |  |
| Development Test and Evaluation:   |  |  |  |  |  |  |  |  |  | 4Q94                |  |               |  |  |  | 1Q95           |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |  |  |  |  |  |  |  |  |  | 1Q95                |  |               |  |  |  | 1Q95           |  |  |  |  |  |
| IPR Production Decision  |  |  |  |  |  |  |  |  |  | 2Q95                |  |               |  |  |  | 2Q95           |  |  |  |  |  |
| Installation Schedule:   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Pr Yr  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contr/Depot/Field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Contract Dates: FY 1997 Jan 97 FY 1998 Jan 98 FY 1999 Jan 99   |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |
| Delivery Date: FY 1997 Jan 98 FY 1998 Jan 99 FY 1999 Jan 00  |  |  |  |  |  |  |  |  |  |                     |  |               |  |  |  |                |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): A2 ODS Mods 1-92-05-4404

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |      | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |       |
|---|-------------------|------|---------|------|---------|------|---------|------|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|------|-------|
|   | Qty               | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |       |
| RDT&E                                     |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| PROCUREMENT                               |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Kit Quantity                              |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits                         | 690               | 63.3 | 415     | 45.3 | 215     | 28.9 | 173     | 25.5 |         |     |         |    |         |    |         |    |     |    |       | 1493 | 163.1 |
| Installation Kits, Nonrecurring Equipment |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Equipment, Nonrecurring                   |                   | 1.9  |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      | 1.9   |
| Engineering Change Orders                 |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Data                                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Training Equipment                        |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Support Equipment                         |                   | 0.2  |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      | 0.2   |
| Other                                     |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Interim Contractor Support                |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Installation of Hardware                  |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 1996 & Prior Eqpt -- Kits              | 193               | 1.8  | 356     | 4.2  |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       | 549  | 6.0   |
| FY 1997 Eqpt -- Kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 1998 Eqpt -- Kits                      |                   |      |         |      |         |      | 122     | 6.4  |         |     |         |    |         |    |         |    |     |    |       | 122  | 6.4   |
| FY 1999 Eqpt -- Kits                      |                   |      |         |      |         |      |         |      | 116     | 1.6 |         |    |         |    |         |    |     |    |       | 116  | 1.6   |
| FY 2000 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 2001 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 2002 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| FY 2003 Eqpt -- kits                      |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| TC Equip-Kits                             |                   |      |         |      |         |      |         |      |         |     |         |    |         |    |         |    |     |    |       |      |       |
| Total Installment                         | 193               | 1.8  | 356     | 4.2  |         |      | 122     | 6.4  | 116     | 1.6 |         |    |         |    |         |    |     |    |       | 787  | 14.0  |
| Total Procurement Cos                     |                   | 67.2 |         | 49.6 |         | 28.9 |         | 31.9 |         | 1.6 |         |    |         |    |         |    |     |    |       |      | 179.2 |

NOTE: Application quantities and costs reflect kits applied by field retrofit only. Costs for ODS application during AO-A2 remanufacture and A1-A2 conversion are reflected on their respective P-forms.

| INDIVIDUAL MODIFICATION  |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   | Date | February 1998 |        |   |   |
|--|--------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|---|---|------|---------------|--------|---|---|
| MODIFICATION TITLE: Transmission Electronic Controller (TEC) 1-90-05-4282  |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M2A2/M3A2  |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The Transmission Electronic Controller (TEC) replaces the hydromechanical transmission control with an electromechanical control. The TEC directly improves transmission maintainability and reliability. The control features of TEC will provide improved acceleration, fuel utilization and hot and cold performance, and better low speed maneuverability. |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:<br><br>IPR Production Decision: 2Q94<br>TDP Available: 2Q94   |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
| Installation Schedule:   |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
|  | Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |    |    | FY 1999 |    |    |    | FY 2000 |   |   |      | FY 2001       |        |   |   |
|  | Totals | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2 | 3 | 4    | 1             | 2      | 3 | 4 |
| <b>Inputs</b>  | 26     | 61      | 61 | 61 | 61 | 61      | 61 | 61 | 62 | 61      | 61 | 61 | 61 | 61      |   |   |      |               |        |   |   |
| <b>Outputs</b>   | 26     | 61      | 61 | 61 | 61 | 61      | 61 | 61 | 62 | 61      | 61 | 61 | 61 | 61      |   |   |      |               |        |   |   |
|  |        | FY 2002 |    |    |    | FY 2003 |    |    |    | FY 2004 |    |    |    | FY 2005 |   |   |      | To            | Totals |   |   |
|  |        | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4  | 1       | 2 | 3 | 4    | Complete      |        |   |   |
| <b>Inputs</b>  |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               | 820    |   |   |
| <b>Outputs</b>   |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               | 820    |   |   |
| METHOD OF IMPLEMENTATION: Contr/depot/field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 8 Months  |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
| Contract Dates: FY 1997 Dec 97 FY 1998 Dec 98 FY 1999  |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |
| Delivery Date: FY 1997 Aug 98 FY 1998 Aug 99 FY 1999   |        |         |    |    |    |         |    |    |    |         |    |    |    |         |   |   |      |               |        |   |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Transmission Electronic Controller (TEC) 1-90-05-4282

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996<br>and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|----------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty                  | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits   | 333                  | 5.8 | 256     | 4.1 | 231     | 3.6 |         |    |         |    |         |    |         |    |         |    |     |    |       | 820 | 13.5 |
| Installation Kits, Nonrecurring                             |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment, Nonrecurring                                     |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders                                   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support                                  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| NOTE: Application is budgeted as part of the A2 ODS program |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                                    |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits                                |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits  |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                                       |                      | 5.8 |         | 4.1 |         | 3.6 |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 13.5 |

| INDIVIDUAL MODIFICATION  |  |                  |     |     |     |                          |     |     |     | Date                 |   | February 1998 |   |         |   |                     |   |          |        |   |   |  |
|--|--|------------------|-----|-----|-----|--------------------------|-----|-----|-----|----------------------|---|---------------|---|---------|---|---------------------|---|----------|--------|---|---|--|
| MODIFICATION TITLE: ACU Pillow Block Mod 1-91-05-4314  |  |                  |     |     |     |                          |     |     |     |                      |   |               |   |         |   |                     |   |          |        |   |   |  |
| MODELS OF SYSTEMS AFFECTED: TOW 2 SUBSYSTEM  |  |                  |     |     |     |                          |     |     |     |                      |   |               |   |         |   |                     |   |          |        |   |   |  |
| DESCRIPTION / JUSTIFICATION:<br><br>This block modification combines 5 class 1 ECPs into a consolidated block ACU package. The ACU is part of the TOW missile launcher. These modifications will seal against moisture and eliminate pillow block associated damage to the ACU which can result in critical failures of the TOW weapon system package. |  |                  |     |     |     |                          |     |     |     |                      |   |               |   |         |   |                     |   |          |        |   |   |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |     |     |     |                          |     |     |     | <u>Planned</u>       |   |               |   |         |   | <u>Accomplished</u> |   |          |        |   |   |  |
| Preliminary Design Review:   |  |                  |     |     |     |                          |     |     |     | NA                   |   |               |   |         |   | NA                  |   |          |        |   |   |  |
| Critical Design Review:  |  |                  |     |     |     |                          |     |     |     | NA                   |   |               |   |         |   | NA                  |   |          |        |   |   |  |
| Contractor Test and Evaluation:  |  |                  |     |     |     |                          |     |     |     | NA                   |   |               |   |         |   | NA                  |   |          |        |   |   |  |
| Development Test and Evaluation:   |  |                  |     |     |     |                          |     |     |     | NA                   |   |               |   |         |   | NA                  |   |          |        |   |   |  |
| Initial Operational Test and Evaluation:   |  |                  |     |     |     |                          |     |     |     | NA                   |   |               |   |         |   | NA                  |   |          |        |   |   |  |
| IPR Production Decision  |  |                  |     |     |     |                          |     |     |     | 1Q92                 |   |               |   |         |   | 1Q92                |   |          |        |   |   |  |
| TDP Available:   |  |                  |     |     |     |                          |     |     |     | NA                   |   |               |   |         |   | NA                  |   |          |        |   |   |  |
| Installation Schedule:   |  |                  |     |     |     |                          |     |     |     |                      |   |               |   |         |   |                     |   |          |        |   |   |  |
| Pr Yr  |  | FY 1997          |     |     |     | FY 1998                  |     |     |     | FY 1999              |   |               |   | FY 2000 |   |                     |   | FY 2001  |        |   |   |  |
| Totals   |  | 1                | 2   | 3   | 4   | 1                        | 2   | 3   | 4   | 1                    | 2 | 3             | 4 | 1       | 2 | 3                   | 4 | 1        | 2      | 3 | 4 |  |
| <b>Inputs</b>  |  | 1874             | 334 | 334 | 334 | 333                      | 267 | 266 | 267 | 266                  |   |               |   |         |   |                     |   |          |        |   |   |  |
| <b>Outputs</b>   |  | 1874             | 334 | 334 | 334 | 333                      | 267 | 266 | 267 | 266                  |   |               |   |         |   |                     |   |          |        |   |   |  |
|  |  | FY 2002          |     |     |     | FY 2003                  |     |     |     | FY 2004              |   |               |   | FY 2005 |   |                     |   | To       | Totals |   |   |  |
|  |  | 1                | 2   | 3   | 4   | 1                        | 2   | 3   | 4   | 1                    | 2 | 3             | 4 | 1       | 2 | 3                   | 4 | Complete |        |   |   |  |
| <b>Inputs</b>  |  |                  |     |     |     |                          |     |     |     |                      |   |               |   |         |   |                     |   |          | 4275   |   |   |  |
| <b>Outputs</b>   |  |                  |     |     |     |                          |     |     |     |                      |   |               |   |         |   |                     |   |          | 4275   |   |   |  |
| METHOD OF IMPLEMENTATION:  |  | Contractor teams |     |     |     | ADMINISTRATIVE LEADTIME: |     |     |     | PRODUCTION LEADTIME: |   |               |   |         |   |                     |   |          |        |   |   |  |
| Contract Dates:  |  | FY 1997 Mar 97   |     |     |     | FY 1998 Mar 98           |     |     |     | FY 1999              |   |               |   |         |   |                     |   |          |        |   |   |  |
| Delivery Date:   |  | FY 1997 N/A      |     |     |     | FY 1998 N/A              |     |     |     | FY 1999              |   |               |   |         |   |                     |   |          |        |   |   |  |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): ACU Pillow Block Mod 1-91-05-4314

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996<br>and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---------------------------------|----------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|                                 | Qty                  | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                     |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                    |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits               | 4275                 | 4.5 |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       | 4275 | 4.5 |
| Installation Kits, Nonrecurring |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment                       |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment, Nonrecurring         |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders       |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data                            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment              |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment               |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other                           |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support      |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware        |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    | 1874                 | 1.3 | 1335    | 0.9 | 1066    | 0.6 |         |    |         |    |         |    |         |    |         |    |     |    |       | 4275 | 2.8 |
| FY 1997 Eqpt -- Kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1999 Eqpt -- Kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                   |                      |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment               | 1874                 | 1.3 | 1335    | 0.9 | 1066    | 0.6 |         |    |         |    |         |    |         |    |         |    |     |    |       | 4275 | 2.8 |
| Total Procurement Cos           |                      | 5.8 |         | 0.9 |         | 0.6 |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 7.2 |

| INDIVIDUAL MODIFICATION  |  |                  |    |    |    |                          |    |    |    | Date           |    | February 1998 |    |                      |     |                     |   |          |   |        |     |     |
|--|--|------------------|----|----|----|--------------------------|----|----|----|----------------|----|---------------|----|----------------------|-----|---------------------|---|----------|---|--------|-----|-----|
| MODIFICATION TITLE: Vehicle Intercom System 1-90-05-4284   |  |                  |    |    |    |                          |    |    |    |                |    |               |    |                      |     |                     |   |          |   |        |     |     |
| MODELS OF SYSTEMS AFFECTED: A2 ODS M2/M3   |  |                  |    |    |    |                          |    |    |    |                |    |               |    |                      |     |                     |   |          |   |        |     |     |
| DESCRIPTION / JUSTIFICATION:<br><br>The VIS system is a replacement for the AN/VIC-1 intercom system. It is a digital intercom system which provides internal communication as well as access to the vehicle radios. This is a non-developmental item to be applied to the A2 ODS vehicle. |  |                  |    |    |    |                          |    |    |    |                |    |               |    |                      |     |                     |   |          |   |        |     |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |    |    |    |                          |    |    |    | <u>PLANNED</u> |    |               |    |                      |     | <u>ACCOMPLISHED</u> |   |          |   |        |     |     |
| Preliminary Design Review:   |  |                  |    |    |    |                          |    |    |    | NA             |    |               |    |                      |     | NA                  |   |          |   |        |     |     |
| Critical Design Review:  |  |                  |    |    |    |                          |    |    |    | NA             |    |               |    |                      |     | NA                  |   |          |   |        |     |     |
| Contractor Test and Evaluation:  |  |                  |    |    |    |                          |    |    |    | NA             |    |               |    |                      |     | NA                  |   |          |   |        |     |     |
| Development Test and Evaluation:   |  |                  |    |    |    |                          |    |    |    | NA             |    |               |    |                      |     | NA                  |   |          |   |        |     |     |
| Initial Operational Test and Evaluation:   |  |                  |    |    |    |                          |    |    |    | 2Q95           |    |               |    |                      |     | 2Q95                |   |          |   |        |     |     |
| IPR Production Decision  |  |                  |    |    |    |                          |    |    |    | 3Q95           |    |               |    |                      |     | 3Q95                |   |          |   |        |     |     |
| TDP Available:   |  |                  |    |    |    |                          |    |    |    | NA             |    |               |    |                      |     | NA                  |   |          |   |        |     |     |
| Installation Schedule:   |  |                  |    |    |    |                          |    |    |    |                |    |               |    |                      |     |                     |   |          |   |        |     |     |
|  |  | FY 1997          |    |    |    | FY 1998                  |    |    |    | FY 1999        |    |               |    | FY 2000              |     |                     |   | FY 2001  |   |        |     |     |
|  |  | 1                | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2  | 3             | 4  | 1                    | 2   | 3                   | 4 | 1        | 2 | 3      | 4   |     |
| <b>Inputs</b>  |  | 26               | 49 | 49 | 80 | 78                       | 38 | 57 | 46 | 88             | 72 | 57            | 89 | 126                  | 105 |                     |   |          |   |        |     |     |
| <b>Outputs</b>   |  | 26               | 49 | 49 | 80 | 78                       | 38 | 57 | 46 | 88             | 72 | 57            | 89 | 126                  | 105 |                     |   |          |   |        |     |     |
|  |  | FY 2002          |    |    |    | FY 2003                  |    |    |    | FY 2004        |    |               |    | FY 2005              |     |                     |   | To       |   | Totals |     |     |
|  |  | 1                | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2  | 3             | 4  | 1                    | 2   | 3                   | 4 | Complete |   |        |     |     |
| <b>Inputs</b>  |  |                  |    |    |    |                          |    |    |    |                |    |               |    |                      |     |                     |   |          |   |        | 960 |     |
| <b>Outputs</b>   |  |                  |    |    |    |                          |    |    |    |                |    |               |    |                      |     |                     |   |          |   |        |     | 960 |
| METHOD OF IMPLEMENTATION:  |  | Contractor/Depot |    |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 6 Months       |    |               |    | PRODUCTION LEADTIME: |     |                     |   | 6 Months |   |        |     |     |
| Contract Dates:  |  | FY 1997 Mar 97   |    |    |    | FY 1998 Mar 98           |    |    |    | FY 1999        |    |               |    |                      |     |                     |   |          |   |        |     |     |
| Delivery Date:   |  | FY 1997 Sep 97   |    |    |    | FY 1998 Sep 98           |    |    |    | FY 1999        |    |               |    |                      |     |                     |   |          |   |        |     |     |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Vehicle Intercom System 1-90-05-4284

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|-------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits   | 553               | 8.4 | 262     | 3.0 | 145     | 3.9 |         |    |         |    |         |    |         |    |         |    |     |    |       | 960 | 15.3 |
| Installation Kits, Nonrecurring Equipment                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment, Nonrecurring                                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders                                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support                                  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| APPLICATION SCHEDULED AND BUDGETED AS PART OF A2ODS PROGRAM |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                                    |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits                                |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                                       |                   | 8.4 |         | 3.0 |         | 3.9 |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 15.3 |

| INDIVIDUAL MODIFICATION   |  |                    |    |    |    |                          |    |    |    | Date           |    | February 1998 |    |                      |    |                     |   |          |   |        |     |
|---|--|--------------------|----|----|----|--------------------------|----|----|----|----------------|----|---------------|----|----------------------|----|---------------------|---|----------|---|--------|-----|
| MODIFICATION TITLE: DECA 1-93-05-4441   |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |
| MODELS OF SYSTEMS AFFECTED: M2A2/M3A2   |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |
| DESCRIPTION / JUSTIFICATION:<br><br>The DECA is the microprocessor based controller of the turret drive system. It transfers signals from crew and sensor inputs to the approp subsystem to execute a specific task. The DECA replaces the Electronic Control Assembly (ECA) and provides built in testing, improved reliability and elimination of hull and turret gyro. |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                    |    |    |    |                          |    |    |    | <u>PLANNED</u> |    |               |    |                      |    | <u>ACCOMPLISHED</u> |   |          |   |        |     |
| Preliminary Design Review:  |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |
| Critical Design Review:   |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |
| Contractor Test and Evaluation:   |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |
| Development Test and Evaluation:  |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |
| Initial Operational Test and Evaluation:  |  |                    |    |    |    |                          |    |    |    | NA             |    |               |    |                      |    |                     |   |          |   |        |     |
| IPR Production Decision   |  |                    |    |    |    |                          |    |    |    | 3Q89           |    |               |    |                      |    | 3Q89                |   |          |   |        |     |
| TDP Available:  |  |                    |    |    |    |                          |    |    |    | 3Q89           |    |               |    |                      |    | 3Q89                |   |          |   |        |     |
| Installation Schedule:  |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        |     |
| Pr Yr   |  | FY 1997            |    |    |    | FY 1998                  |    |    |    | FY 1999        |    |               |    | FY 2000              |    |                     |   | FY 2001  |   |        |     |
| Totals  |  | 1                  | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2  | 3             | 4  | 1                    | 2  | 3                   | 4 | 1        | 2 | 3      | 4   |
| <b>Inputs</b>   |  | 26                 | 49 | 49 | 80 | 78                       | 38 | 57 | 46 | 88             | 72 | 57            | 50 | 85                   | 66 |                     |   |          |   |        |     |
| <b>Outputs</b>  |  | 26                 | 49 | 49 | 80 | 78                       | 38 | 57 | 46 | 88             | 72 | 57            | 50 | 85                   | 66 |                     |   |          |   |        |     |
|   |  | FY 2002            |    |    |    | FY 2003                  |    |    |    | FY 2004        |    |               |    | FY 2005              |    |                     |   | To       |   | Totals |     |
|   |  | 1                  | 2  | 3  | 4  | 1                        | 2  | 3  | 4  | 1              | 2  | 3             | 4  | 1                    | 2  | 3                   | 4 | Complete |   |        |     |
| <b>Inputs</b>   |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        | 841 |
| <b>Outputs</b>  |  |                    |    |    |    |                          |    |    |    |                |    |               |    |                      |    |                     |   |          |   |        | 841 |
| METHOD OF IMPLEMENTATION:   |  | Contractor & Depot |    |    |    | ADMINISTRATIVE LEADTIME: |    |    |    | 6 Months       |    |               |    | PRODUCTION LEADTIME: |    |                     |   | 8 Months |   |        |     |
| Contract Dates:   |  | FY 1997 Jan 97     |    |    |    | FY 1998 Jan 98           |    |    |    | FY 1999 Jan 99 |    |               |    |                      |    |                     |   |          |   |        |     |
| Delivery Date:  |  | FY 1997 Sep 97     |    |    |    | FY 1998 Sep 98           |    |    |    | FY 1999 Sep 99 |    |               |    |                      |    |                     |   |          |   |        |     |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): DECA 1-93-05-4441

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996<br>and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|----------------------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty                  | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits, Nonrecurring   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment   | 450                  | 11.5 | 233     | 5.7 | 58      | 1.4 | 100     | 2.5 |         |    |         |    |         |    |         |    |     |    |       | 841 | 21.1 |
| Equipment, Nonrecurring   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| APPLICATION BUDGETED AS PART OF A1-A2 CONVERSION AND A2 ODS APPLICATION |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits  |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                      |      |         |     |         |     |         |     |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos   |                      | 11.5 |         | 5.7 |         | 1.4 |         | 2.5 |         |    |         |    |         |    |         |    |     |    |       |     | 21.1 |

| INDIVIDUAL MODIFICATION  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      | Date |             | February 1998 |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
|--|---------|---|---|---|---------|---|---|-----|---------|------|-----|-----|---------|-----|------|------|-------------|---------------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|--|--|--|--|--|--|--|-----|-----|-----|-----|-----|-----|------|----------------|-----|--|--|--|--|----------------|--|--|--|--|--|--|--|-----|-----|-----|-----|-----|-----|------|-----|-----|--|--|--|--|
| MODIFICATION TITLE: HALON Replacement 1-92-05-4422   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle System  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The Halon replacement program is in response to DOD and Army policy to eliminate the unnecessary release of Halon into the atmosphere. This program will provide an alternate agent to use in the BFV engine compartment fire extinguishers.   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Preliminary Design Review:   |         |   |   |   |         |   |   |     |         | 3Q95 |     |     |         |     | 1Q96 |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Critical Design Review:  |         |   |   |   |         |   |   |     |         | 4Q96 |     |     |         |     | 1Q97 |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Contractor Test and Evaluation:  |         |   |   |   |         |   |   |     |         | NA   |     |     |         |     | NA   |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Development Test and Evaluation:   |         |   |   |   |         |   |   |     |         | 4Q96 |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Initial Operational Test and Evaluation:   |         |   |   |   |         |   |   |     |         | NA   |     |     |         |     | NA   |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| IPR Production Decision  |         |   |   |   |         |   |   |     |         | 2Q98 |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Approve ECP:   |         |   |   |   |         |   |   |     |         | 2Q98 |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Installation Schedule:   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>264</td> <td>811</td><td>811</td><td>811</td><td>812</td> <td>803</td><td>803</td><td>803</td><td>802</td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>264</td> <td>811</td><td>811</td><td>811</td><td>812</td> <td>803</td><td>803</td><td>803</td><td>802</td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |  |  |  |  |  |  |  | 264 | 811 | 811 | 811 | 812 | 803 | 803  | 803            | 802 |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  | 264 | 811 | 811 | 811 | 812 | 803 | 803  | 803 | 802 |  |  |  |  |
| Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |     | FY 1999 |      |     |     | FY 2000 |     |      |      | FY 2001     |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4   | 1       | 2    | 3   | 4   | 1       | 2   | 3    | 4    | 1           | 2             | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   | 264 | 811     | 811  | 811 | 812 | 803     | 803 | 803  | 802  |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   | 264 | 811     | 811  | 811 | 812 | 803     | 803 | 803  | 802  |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>6720</td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td>6720</td> </tr> </tbody> </table>   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     | 6720 | <b>Outputs</b> |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     | 6720 |     |     |  |  |  |  |
|  | FY 2002 |   |   |   | FY 2003 |   |   |     | FY 2004 |      |     |     | FY 2005 |     |      |      | To Complete | Totals        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4   | 1       | 2    | 3   | 4   | 1       | 2   | 3    | 4    |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   | 6720  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   | 6720  |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor Teams ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months  |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Contract Dates: FY 1997 N/A FY 1998 Mar 98 FY 1999   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |
| Delivery Date: FY 1997 N/A FY 1998 N/A FY 1999   |         |   |   |   |         |   |   |     |         |      |     |     |         |     |      |      |             |               |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |     |     |     |     |     |     |      |                |     |  |  |  |  |                |  |  |  |  |  |  |  |     |     |     |     |     |     |      |     |     |  |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): HALON Replacement 1-92-05-4422

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |     |
|---|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|-----|-----|
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |     |
| RDT&E   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| PROCUREMENT   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Kit Quantity  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Installation Kits   |                   |     |         |     | 6720    | 4.4 |         |     |         |     |         |    |         |    |         |    |     |    | 6720  | 4.4 |     |
| Installation Kits, Nonrecurring Equipment   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Equipment, Nonrecurring   |                   |     |         |     |         | 0.3 |         |     |         |     |         |    |         |    |         |    |     |    |       |     | 0.3 |
| Engineering Change Orders   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Data  |                   | 3.7 |         | 0.6 |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     | 4.3 |
| Training Equipment  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Support Equipment   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Other   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Interim Contractor Support  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| NOTE: Installation quantity and cost reflect field retrofit only. Applications occurring during A1-A2 conversion, A0-A2 remanufacture and ODS field retrofit are reflected on their respective P-Forms. |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Installation of Hardware  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 1996 & Prior Eqpt -- Kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 1997 Eqpt -- Kits  |                   |     |         |     | 160     | 0.0 | 2835    | 0.1 | 2835    | 0.1 |         |    |         |    |         |    |     |    | 5830  | 0.2 |     |
| FY 1998 Eqpt -- Kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 1999 Eqpt -- Kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2000 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2001 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2002 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| FY 2003 Eqpt -- kits  |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| TC Equip-Kits   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |     |     |
| Total Installment   |                   |     |         |     | 160     | 0.0 | 2835    | 0.1 | 2835    | 0.1 |         |    |         |    |         |    |     |    | 5830  | 0.2 |     |
| Total Procurement Cos   |                   | 3.7 |         | 0.6 |         | 4.7 |         | 0.1 |         | 0.1 |         |    |         |    |         |    |     |    |       |     | 9.2 |

| INDIVIDUAL MODIFICATION  |         |   |   |   |         |   |   |   |         | Date           |   | February 1998 |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---------|---|---|---|---------|---|---|---|---------|----------------|---|---------------|---------|---|---------------------|---|----------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--------|--|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---------------|---|---|---|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: <b>Armor Tiles 1-84-05-4038</b>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M2A2(IFV)/M3A2(CFV)  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>Armor tiles are one of the High Survivability improvements to the BFVS. The tiles provide increased armor protection for shaped charge threats, including hand held heat and other classes of warheads as specified in the BFVS material need area. There are 5 configurations of tiles covering the vehicle front, sides and turret.  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |         |   |   |   |         |   |   |   |         | <u>PLANNED</u> |   |               |         |   | <u>ACCOMPLISHED</u> |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preliminary Design Review:   |         |   |   |   |         |   |   |   |         | NA             |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Critical Design Review:  |         |   |   |   |         |   |   |   |         | 3Q90           |   |               |         |   | 3Q90                |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contractor Test and Evaluation:  |         |   |   |   |         |   |   |   |         | NA             |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Development Test and Evaluation:   |         |   |   |   |         |   |   |   |         | NA             |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |         |   |   |   |         |   |   |   |         | NA             |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IPR Production Decision  |         |   |   |   |         |   |   |   |         | 2Q92           |   |               |         |   | 2Q93                |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TDP Available:   |         |   |   |   |         |   |   |   |         | NA             |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>Totals</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001 |        |  |   | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3        | 4 | 1             | 2 | 3 | 4 | <b>Inputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                |   |               | FY 2000 |   |                     |   | FY 2001  |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Totals   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | 1        | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th>To</th> <th>Totals</th> </tr> <tr> <th></th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>Complete</th> <th></th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td> <td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td> <td></td> </tr> </tbody> </table>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To      | Totals |  | 1 | 2      | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | Complete |   | <b>Inputs</b> |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                |   |               | FY 2005 |   |                     |   | To       | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2              | 3 | 4             | 1       | 2 | 3                   | 4 | Complete |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Troop installed      ADMINISTRATIVE LEADTIME: 6 Months      PRODUCTION LEADTIME: 6 Months  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates:      FY 1997      Sep 97      FY 1998      FY 1999   |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date:      FY 1997      Jan 99      FY 1998      FY 1999  |         |   |   |   |         |   |   |   |         |                |   |               |         |   |                     |   |          |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |         |        |  |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |               |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Armor Tiles 1-84-05-4038

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |      | FY 1997 |      | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|-------------------|------|---------|------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty               | \$   | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E                                     |                   | 4.0  |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 4.0  |
| PROCUREMENT                               |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity                              |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation Kits                         | 136               | 34.3 | 110     | 23.5 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 246 | 57.7 |
| Installation Kits, Nonrecurring Equipment |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Equipment, Nonrecurring                   |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Engineering Change Orders                 |                   |      |         | 0.5  |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.5  |
| Data                                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment                        |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment                         |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other                                     |                   | 6.3  |         | 8.8  |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 15.1 |
| Interim Contractor Support                |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                  |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits              |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits                      |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits                             |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment                         |                   |      |         |      |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                     |                   | 40.6 |         | 32.7 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 73.3 |

| INDIVIDUAL MODIFICATION  |  |  |  |  |  |  |  |  |  | Date           |  | February 1998 |  |  |  |                     |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|----------------|--|---------------|--|--|--|---------------------|--|--|--|--|--|
| MODIFICATION TITLE: A2 Card Retrofit 1-96-05-4517  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: TOW 2 Subsystem (T2SS) Missile Guidance System (MGS)   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The relay/squib circuit card assembly (CCA) controls the power up/power down functions of the MGS and provides indications of missile launch, flight status and modes of operation. It also generates the PREFIRE and FIRE squib control signals required to launch the missile the WIRECUT squib control signal used to cut the missile guidance wires. This mod will add a semiconductor device diode across resistor "R39" on the A2 CCA to increase the speed of discharge for capacitor C21 and to prevent an inadvertent missile launch. |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |  |  |  |  |  |  |  |  | <u>PLANNED</u> |  |               |  |  |  | <u>ACCOMPLISHED</u> |  |  |  |  |  |
| Preliminary Design Review:   |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Critical Design Review:  |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Contractor Test and Evaluation:  |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Development Test and Evaluation:   |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| Initial Operational Test and Evaluation:   |  |  |  |  |  |  |  |  |  | N/A            |  |               |  |  |  | N/A                 |  |  |  |  |  |
| IPR Production Decision  |  |  |  |  |  |  |  |  |  | 1Q96           |  |               |  |  |  | 1Q96                |  |  |  |  |  |
| TDP Available:   |  |  |  |  |  |  |  |  |  | 1Q96           |  |               |  |  |  | 1Q96                |  |  |  |  |  |
| Installation Schedule:   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Pr Yr  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Inputs   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Outputs  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| To Complete  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Totals   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| 3258   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| 3258   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor teams ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 2 Months   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Contract Dates: FY 1997 Sep 97 FY 1998 May 98 FY 1999  |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |
| Delivery Date: FY 1997 Nov 97 FY 1998 Jul 98 FY 1999   |  |  |  |  |  |  |  |  |  |                |  |               |  |  |  |                     |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): A2 Card Retrofit 1-96-05-4517

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |
|---|-------------------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|
|   | Qty               | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |
| RDT&E   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| PROCUREMENT   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Kit Quantity  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Installation Kits   |                   |    | 3258    | 0.8 |         |    |         |    |         |    |         |    |         |    |         |    |     |    | 3258  | 0.8 |
| Installation Kits, Nonrecurring                                 |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Equipment   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Equipment, Nonrecurring   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Engineering Change Orders                                       |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Data  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Training Equipment  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Support Equipment   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Other   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Interim Contractor Support                                      |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| NOTE: Application costs are included in procurement unit price. |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Installation of Hardware  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 1996 & Prior Eqpt -- Kits                                    |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 1997 Eqpt -- Kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 1998 Eqpt -- Kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 1999 Eqpt -- Kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 2000 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 2001 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 2002 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| FY 2003 Eqpt -- kits  |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| TC Equip-Kits   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Total Installment   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |
| Total Procurement Cos   |                   |    |         | 0.8 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 0.8 |

| INDIVIDUAL MODIFICATION   |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   | Date |    |          |        |    |   |
|---|----------------|---------|---|---|---------------|---------|---|---|---|---------|---|---|---|---------|---|------|----|----------|--------|----|---|
| February 1998   |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| MODIFICATION TITLE: A2 ODS Applique 1-98-05-4539  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle Systems  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| DESCRIPTION / JUSTIFICATION:<br><br><u>ODS Vehicle Applique</u> For Force XXI and the First Digitized Division, the Bradley Infantry vehicles will be integrated with the Army's Applique'(+) computer system. The integration kit will include mounting the flat panel display, keyboard and CPU inside of the Bradley Turret and interfacing the vehicle systems (Bradley Eyesafe Laser Rangefinder and Position/Navigation System) to to applique'(+) to provide Laser Designation and Steer-to capability. The Bradley Infantry variant will also include an additional display in the hull for squad situational awareness and an external turret mounted display for the Bradley commander's awareness while commanding from a "name tag defiladed position. <u>M2A3 Vehicle Applique</u> M2A3 will incorporate the Army's embedded Battle Command Software into the vehicle's turret computer to ensure interoperability with FBCB2. PM Bradley jointly with PM Abrams is working a common integration approach that consists of utilizing the GCSS common processor card (Power PC-VME card). This will be an additional processor card required for the M2A3 to incorporate EBC. |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
|   | <u>PLANNED</u> |         |   |   | <u>ACTUAL</u> |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| Preliminary Design Review:  | 7/95           |         |   |   | 7/95          |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| Critical Design Review:   | 1/96           |         |   |   | 1/96          |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| LUT:  | 9/98           |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| IOT&E:  | 10/99          |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| MS III  | 11/99          |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| Installation Schedule:  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
|   | Pr Yr          | FY 1997 |   |   |               | FY 1998 |   |   |   | FY 1999 |   |   |   | FY 2000 |   |      |    | FY 2001  |        |    |   |
|   | Totals         | 1       | 2 | 3 | 4             | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3    | 4  | 1        | 2      | 3  | 4 |
| <b>Inputs</b>   |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   | 126  | 23 | 23       | 23     |    |   |
| <b>Outputs</b>  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   | 126  | 23 | 23       | 23     | 23 |   |
|   |                | FY 2002 |   |   |               | FY 2003 |   |   |   | FY 2004 |   |   |   | FY 2005 |   |      |    | To       | Totals |    |   |
|   |                | 1       | 2 | 3 | 4             | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3    | 4  | Complete |        |    |   |
| <b>Inputs</b>   |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          | 195    |    |   |
| <b>Outputs</b>  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          | 195    |    |   |
| METHOD OF IMPLEMENTATION: Contractor applied ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 12 Months   |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| Contract Dates: FY 1997 FY 1998 FY 1999 Jun 99  |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |
| Delivery Date: FY 1997 FY 1998 FY 1999 Jun 00   |                |         |   |   |               |         |   |   |   |         |   |   |   |         |   |      |    |          |        |    |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): A2 ODS Applique 1-98-05-4539

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996<br>and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |      | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |      |
|---|----------------------|----|---------|----|---------|----|---------|------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|------|
|   | Qty                  | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |      |
| RDT&E   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| PROCUREMENT   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Kit Quantity  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| ODS Installation Kits                                     |                      |    |         |    |         |    | 69      | 7.0  |         |    |         |    |         |    |         |    |     |    | 69    | 7.0 |      |
| ODS Nonrecurring  |                      |    |         |    |         |    |         | 0.5  |         |    |         |    |         |    |         |    |     |    |       |     | 0.5  |
| A3 Installation Kits                                      |                      |    |         |    |         |    | 126     | 2.9  |         |    |         |    |         |    |         |    |     |    | 126   | 2.9 |      |
| A3 Nonrecurring   |                      |    |         |    |         |    |         | 0.5  |         |    |         |    |         |    |         |    |     |    |       |     | 0.5  |
| Engineering Change Orders                                 |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Data  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Training Equipment  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Support Equipment   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Other   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Interim Contractor Support                                |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| NOTE: Application costs are included in procurement cost. |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Installation of Hardware                                  |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits                              |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1997 Eqpt -- Kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1998 Eqpt -- Kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 1999 Eqpt -- Kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2000 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2001 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2002 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| FY 2003 Eqpt -- kits                                      |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| TC Equip-Kits   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Installment   |                      |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |     |    |       |     |      |
| Total Procurement Cos                                     |                      |    |         |    |         |    |         | 10.9 |         |    |         |    |         |    |         |    |     |    |       |     | 10.9 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: ITEMS LESS THAN \$2.0M (WOCV-WTCV) (GL3200)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 58.0        | 5.0     | 1.2     | 0.9     | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.3     | 0.0         | 72.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 58.0        | 5.0     | 1.2     | 0.9     | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.3     | 0.0         | 72.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 58.0        | 5.0     | 1.2     | 0.9     | 1.2     | 1.2     | 1.2     | 1.2     | 1.3     | 1.3     | 0.0         | 72.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** Provides for procurement and assembly of tool/shop sets, small arms, and gun mounts. The items are needed by maintenance personnel to maintain weapons and combat vehicles, and by Active Army, National Guard, Reserve and ROTC units to perform combat and training missions. The tool/shop equipment has multi-applications and is essential to all levels of weapon and combat vehicle maintenance.

**JUSTIFICATION:** Required to achieve and sustain required levels of readiness to units providing maintenance support to all small arms (M16,9mm Pistol, 7.62 Machine Gun, etc.), artillery (M102,M119,M198 Howitzers, etc.), air defense (Vulcan, PIVAD, etc.) special weapons, and fire control (Tanks, etc.) organizations. Small Arms Weapons and mounts are required to support AAO shortages, field replacements and training requirements.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>  |      |   | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |      |          |              | P-1 Line Item Nomenclature:<br>ITEMS LESS THAN \$2.0M (WOCV-WTCV)<br>(GL3200) |          |              | Weapon System Type: |          | Date:<br>February 1998 |      |          |
|--|------|---|---|------|----------|--------------|---|----------|--------------|---------------------|----------|------------------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                      |      |   | <b>FY 96</b>  |      |          | <b>FY 97</b> |   |          | <b>FY 98</b> |                     |          | <b>FY 99</b>           |      |          |
|  |      |   | TotalCost   | Qty  | UnitCost | TotalCost    | Qty   | UnitCost | TotalCost    | Qty                 | UnitCost | TotalCost              | Qty  | UnitCost |
|  |      |   | \$000   | Each | \$000    | \$000        | Each  | \$000    | \$000        | Each                | \$000    | \$000                  | Each | \$000    |
| 1. Shot Gun, 12 Gage                               | G124 | A | 256   | 256  | 1        | 94           | 410   |          | 100          | 400                 |          | 100                    | 400  |          |
| 2. Shop Equip, Small Arms<br>Repair, Shelter Mtd   | G337 | A |   |      |          | 158          | 4   | 40       |              |                     |          | 304                    | 8    | 38       |
| 3. Shop Equip, Artillery Maint,<br>FM Set N        | G348 | A |   |      |          | 76           | 2   | 38       |              |                     |          |                        |      |          |
| 4. Tool Set, Instrument and<br>Fire Control FM     | G371 | A | 204   | 10   | 20       | 94           | 4   | 24       | 56           | 2                   | 28       | 105                    | 5    | 21       |
| 5. Shop Set, Small Arms,<br>Field Maint, PCS Set D | G385 | A | 110   | 2    | 55       | 91           | 2   | 46       | 75           | 1                   | 75       |                        |      |          |
| 6. Shop Set, Small Arms<br>FM, Basic               | G723 | A |   |      |          | 14           | 1   | 14       |              |                     |          | 14                     | 1    | 14       |
| 7. XM144 Telescope                                 |      | A | 679   |      |          |              |   |          |              |                     |          |                        |      |          |
| 8. Tool Set, Battalion Maint                       | G427 | A |   |      |          | 269          | 67  | 4        | 471          | 70                  | 7        | 342                    | 86   | 4        |
| 9. Tool Kit, Electronic Sys Maint                  | S380 | A |   |      |          | 103          | 18  | 6        | 488          | 94                  | 5        | 299                    | 75   | 4        |
| <b>TOTAL</b>                                       |      |   | <b>1249</b>   |      |          | <b>899</b>   |   |          | <b>1190</b>  |                     |          | <b>1164</b>            |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 698.5       | 226.9   | 282.0   | 95.4    | 72.8    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5         | 1411.2     |
| Less PY Adv Proc | 16.3        |         |         |         |         |         |         |         |         |         |             | 16.3       |
| Plus CY Adv Proc | 16.3        |         |         |         |         |         |         |         |         |         |             | 16.3       |
| Net Proc (P-1)   | 698.5       | 226.9   | 282.0   | 95.4    | 72.8    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5         | 1411.2     |
| Initial Spares   | 1.6         | 1.9     | 2.4     | 6.4     | 3.6     |         |         |         |         |         |             | 15.9       |
| Total Proc Cost  | 700.1       | 228.8   | 284.4   | 101.8   | 76.4    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5         | 1427.1     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

Funds the procurement of approved modifications to the 155MM M109 Self-Propelled Howitzer. The fiscal program identified herein reflects the economies and efficiencies of a competitive multiyear contract strategy. (See detailed description/justification on following exhibit P-3A)

**COOPERATIVE AGREEMENTS:**

The Government of the United States of America , as represented by the Department of the Army (DA), and the Government of Israel (GOI), as represented by the Ministry of Defense (MOD), agreed to cooperate on a joint development project to improve the M109 Series 155mm Self-Propelled Howitzer in November 1985. This program incorporated already developed items, together with items which were developed under contract, into prototype M109s. DA and MOD supplied their own M109s for prototype work. GOI funding for its share of the program was \$30.7 million over Fiscal Years (FY) 1986-1990. The U.S. Howitzer is currently in the full scale production phase and has been named the M109A6 Paladin. The U.S./Israeli Joint Development Agreement has expired effective with the Paladin Milestone III Full Scale Production Decision . The system developer, BMY, a Division of Harsco Corporation, was awarded a full scale engineering development contract in October 1985, and a low rate production contract in September 1990. In April 1993, FMC Corporation (now known as United Defense, Limited Partnership, Paladin Production Division) won a competitive multiyear procurement contract for full scale production of remaining Paladin requirements during FY 1993-1996 programs.



**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |  |
|--|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | P-1 Item Nomenclature<br>HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400) |
|--|--|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| Description                          | Classification | Fiscal Years |         |         |         |         |         |         |         | TC  | Total   |  |
|--------------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|---------|--|
|                                      |                | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 |     |         |  |
| Howitzer Improvement Program         |                |              |         |         |         |         |         |         |         |     |         |  |
| 1-81-05-1002                         | unclassified   | 1,207.4      | 95.4    | 66.5    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 0.0 | 1,395.3 |  |
| Chlorofluorocarbon (CFC) Elimination |                |              |         |         |         |         |         |         |         |     |         |  |
| 1-96-05-1003                         | unclassified   | 0.0          | 0.0     | 6.3     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 9.5 | 15.8    |  |
| Totals                               |                | 1,207.4      | 95.4    | 72.8    | 11.3    | 9.1     | 5.5     | 0.1     | 0.0     | 9.5 | 1,411.1 |  |

| INDIVIDUAL MODIFICATION   |        |                  |    |    |    |                                 |    |    |    | Date     |    | February 1998 |    |                             |   |   |   |           |        |   |   |
|---|--------|------------------|----|----|----|---------------------------------|----|----|----|----------|----|---------------|----|-----------------------------|---|---|---|-----------|--------|---|---|
| <b>MODIFICATION TITLE:</b> Howitzer Improvement Program 1-81-05-1002  |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>MODELS OF SYSTEMS AFFECTED:</b> Howitzer, MED Sp Ft 155mm M109 Ser (Mod) (MYP)   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>DESCRIPTION / JUSTIFICATION:</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <p>The M109A6 Paladin, approved for full scale production, has been designed to upgrade the M109A2/A3 Howitzer's responsiveness, effectiveness, survivability; and Reliability, Availability, and Maintainability-Durability (RAM-D). This meets the user's urgent need for a product improved system that satisfies the deficiencies cited in these areas by the Mission Element Need Statement (MENS), approved by the Secretary of Defense in December 1980. The production phase of the program involves a combined effort between Letterkenny Army Depot and the contractor. M109A2/A3 Howitzers from CONUS and OCONUS field units are being shipped to Letterkenny Army Depot. Letterkenny removes traverse mechanism, disassembles the howitzer, reconditions turret components to be reset in the new turret, and overhauls/ modifies the chassis to the Paladin configuration. The reconditioned turret components, and the overhauled/modified chassis with the new M284 Cannon and M182 Gun Mount manufactured by Watervliet and Rock Island Arsenal, respectively, are shipped to the contractor for final integration and assembly, and acceptance testing. The acquisition strategy for FY89/90-FY92 called for sole source contracts. An FY93-FY96 competitive multiyear production contract was awarded to UDLP in April 1993. In April 1997, a contract modification was awarded to the existing multiyear production contract for an additional 37 M109A6 Paladins. An FY98 contract option for 36 vehicles was awarded in November 1997.</p> |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <p>The M109A6 was approved for entry into full scale development in November 1984. At that time, DA decided to modify M109A2/A3 Howitzers to a HIP configuration. It was decided to merge the Howitzer Extended Life Program (HELP) into the HIP where kits from both programs would be applied to the M109A2/A3 Howitzer. The improved 155mm Self-Propelled Howitzer was approved for Type-Classification Low Rate Production (TC-LRP) and designated the M109A6 Howitzer following a Milestone III-A ASARC on 7 February 1990. In March 1993 a Milestone III Pre-ASARC review was chaired by the Assistant Secretary of the Army for Research, Development and Acquisition, and the M109A6 Paladin was approved for Type-Classification-Standard and full rate production and deployment. This Milestone III is documented in Acquisition Decision Memorandum dated 9 April 1993. The Paladin production program is within schedule and, as of February 1998, successfully fielded 487 M109A6 Howitzers and all associated items of equipment. All major development milestones for the M109A6 Paladin Howitzer have been successfully completed.</p>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>Installation Schedule:</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           |        |   |   |
|   | Pr Yr  | FY 1997          |    |    |    | FY 1998                         |    |    |    | FY 1999  |    |               |    | FY 2000                     |   |   |   | FY 2001   |        |   |   |
|   | Totals | 1                | 2  | 3  | 4  | 1                               | 2  | 3  | 4  | 1        | 2  | 3             | 4  | 1                           | 2 | 3 | 4 | 1         | 2      | 3 | 4 |
| <b>Inputs</b>   | 555    | 54               | 54 | 54 | 54 | 54                              | 54 | 53 | 18 |          |    |               |    |                             |   |   |   |           |        |   |   |
| <b>Outputs</b>  | 417    | 49               | 54 | 55 | 55 | 54                              | 54 | 54 | 54 | 41       | 18 | 18            | 18 | 9                           |   |   |   |           |        |   |   |
|   |        | FY 2002          |    |    |    | FY 2003                         |    |    |    | FY 2004  |    |               |    | FY 2005                     |   |   |   | To        | Totals |   |   |
|   |        | 1                | 2  | 3  | 4  | 1                               | 2  | 3  | 4  | 1        | 2  | 3             | 4  | 1                           | 2 | 3 | 4 | Complete  |        |   |   |
| <b>Inputs</b>   |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           | 950    |   |   |
| <b>Outputs</b>  |        |                  |    |    |    |                                 |    |    |    |          |    |               |    |                             |   |   |   |           | 950    |   |   |
| <b>METHOD OF IMPLEMENTATION:</b>  |        | Depot/Contractor |    |    |    | <b>ADMINISTRATIVE LEADTIME:</b> |    |    |    | 1 Months |    |               |    | <b>PRODUCTION LEADTIME:</b> |   |   |   | 19 Months |        |   |   |
| <b>Contract Dates:</b>  |        | FY 1997 Apr 97   |    |    |    | FY 1998 Nov 97                  |    |    |    | FY 1999  |    |               |    |                             |   |   |   |           |        |   |   |
| <b>Delivery Date:</b>   |        | FY 1997 Nov 98   |    |    |    | FY 1998 Jun 99                  |    |    |    | FY 1999  |    |               |    |                             |   |   |   |           |        |   |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Howitzer Improvement Program 1-81-05-1002

FINANCIAL PLAN: (\$ in Millions)

|                             | FY 1996<br>and Prior |        | FY 1997 |      | FY 1998 |      | FY 1999 |      | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |    | TC  |    | TOTAL |     |        |
|-----------------------------|----------------------|--------|---------|------|---------|------|---------|------|---------|-----|---------|-----|---------|-----|---------|----|-----|----|-------|-----|--------|
|                             | Qty                  | \$     | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty | \$ | Qty   | \$  |        |
| RDT&E                       |                      | 149.4  |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 149.4  |
| PROCUREMENT                 |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| Kit Quantity                | 877                  |        | 37      |      | 36      |      |         |      |         |     |         |     |         |     |         |    |     |    |       | 950 |        |
| Equipment                   |                      | 698.8  |         | 40.1 |         | 37.3 |         | 0.5  |         | 4.9 |         | 5.5 |         | 0.1 |         |    |     |    |       |     | 787.2  |
| Equipment, Nonrecurring     |                      | 233.3  |         | 4.5  |         | 4.2  |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 242.0  |
| Engineering Change Orders   |                      | 163.5  |         | 20.7 |         | 10.5 |         | 3.3  |         | 0.4 |         |     |         |     |         |    |     |    |       |     | 198.4  |
| Data                        |                      | 11.7   |         | 2.3  |         | 0.5  |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 14.5   |
| Training Equipment          |                      | 14.1   |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 14.1   |
| Vehicular Intercom System   |                      | 9.2    |         | 0.4  |         | 0.4  |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 10.0   |
| Other                       |                      | 4.4    |         | 0.7  |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     | 5.1    |
| Project Management Admin    |                      | 9.2    |         | 4.7  |         | 3.0  |         | 2.8  |         |     |         |     |         |     |         |    |     |    |       |     | 19.7   |
| Fielding                    |                      | 10.0   |         | 10.4 |         | 8.5  |         | 4.5  |         | 3.8 |         |     |         |     |         |    |     |    |       |     | 37.2   |
| Depot Maint Premodification |                      |        |         |      |         |      |         | 0.2  |         |     |         |     |         |     |         |    |     |    |       |     | 0.2    |
| Installation of Hardware    |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 1996 & Prior--Kits (877) | 716                  | 53.2   | 161     | 9.2  |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       | 877 | 62.4   |
| FY 1997 Eqpt -- Kits (37)   |                      |        | 37      | 2.4  |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       | 37  | 2.4    |
| FY 1998 Eqpt -- Kits (36)   |                      |        |         |      | 36      | 2.1  |         |      |         |     |         |     |         |     |         |    |     |    |       | 36  | 2.1    |
| FY 1999 Eqpt -- Kits        |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2000 Eqpt -- kits        |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2001 Eqpt -- kits        |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2002 Eqpt -- kits        |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| FY 2003 Eqpt -- kits        |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| TC Equip-Kits               |                      |        |         |      |         |      |         |      |         |     |         |     |         |     |         |    |     |    |       |     |        |
| Total Installment           | 716                  | 53.2   | 198     | 11.6 | 36      | 2.1  |         |      |         |     |         |     |         |     |         |    |     |    |       | 950 | 66.9   |
| Total Procurement Cos       |                      | 1207.4 |         | 95.4 |         | 66.5 |         | 11.3 |         | 9.1 |         | 5.5 |         | 0.1 |         |    |     |    |       |     | 1395.3 |

| INDIVIDUAL MODIFICATION   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   | Date          |   |          |        |   |   |
|---|--------|----------|---|---|---|---------------------------------|---|---|---|----------|-----|-----|-----|-----------------------------|---|---------------|---|----------|--------|---|---|
|   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   | February 1998 |   |          |        |   |   |
| <b>MODIFICATION TITLE:</b> Chlorofluorocarbon (CFC) Elimination 1-96-05-1003  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
| <b>MODELS OF SYSTEMS AFFECTED:</b> M109A6 Paladin Howitzer  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
| <b>DESCRIPTION / JUSTIFICATION:</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
| References: DOD Directive 6050.0; DA Policy Letter 200.90-1; AMC Regulation 70-68; Montreal Protocol of 1986.<br>The previous references mandate the replacement of R-12 Freon, used in the current M109A6 Paladin's Microclimatic Conditioning System (MCS), with a non-chlorofluorocarbon (CFC) substitute. |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
| <b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
| Request For Proposal - accomplished 3Q FY 97; Vendor Selected 1Q FY 98; Joint Government/Contractor Test and Evaluation -planned 3Q FY 98; IPR Production Decision/Contract Modification - planned 4Q FY 98; and TDP Available - planned 4Q FY 98.  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
| <b>Installation Schedule:</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          |        |   |   |
|   | Pr Yr  | FY 1997  |   |   |   | FY 1998                         |   |   |   | FY 1999  |     |     |     | FY 2000                     |   |               |   | FY 2001  |        |   |   |
|   | Totals | 1        | 2 | 3 | 4 | 1                               | 2 | 3 | 4 | 1        | 2   | 3   | 4   | 1                           | 2 | 3             | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>   |        |          |   |   |   |                                 |   |   |   | 20       | 105 | 120 | 120 |                             |   |               |   |          |        |   |   |
| <b>Outputs</b>  |        |          |   |   |   |                                 |   |   |   | 6        | 66  | 84  | 101 | 108                         |   |               |   |          |        |   |   |
|   |        | FY 2002  |   |   |   | FY 2003                         |   |   |   | FY 2004  |     |     |     | FY 2005                     |   |               |   | To       | Totals |   |   |
|   |        | 1        | 2 | 3 | 4 | 1                               | 2 | 3 | 4 | 1        | 2   | 3   | 4   | 1                           | 2 | 3             | 4 | Complete |        |   |   |
| <b>Inputs</b>   |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          | 365    |   |   |
| <b>Outputs</b>  |        |          |   |   |   |                                 |   |   |   |          |     |     |     |                             |   |               |   |          | 365    |   |   |
| <b>METHOD OF IMPLEMENTATION:</b>  |        | MWO Team |   |   |   | <b>ADMINISTRATIVE LEADTIME:</b> |   |   |   | 9 Months |     |     |     | <b>PRODUCTION LEADTIME:</b> |   |               |   | 5 Months |        |   |   |
| <b>Contract Dates:</b>  |        | FY 1997  |   |   |   | FY 1998                         |   |   |   | Jul 98   |     |     |     | FY 1999                     |   |               |   |          |        |   |   |
| <b>Delivery Date:</b>   |        | FY 1997  |   |   |   | FY 1998                         |   |   |   | Dec 98   |     |     |     | FY 1999                     |   |               |   |          |        |   |   |

| INDIVIDUAL MODIFICATION          |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | Date  |     | February 1998 |      |     |
|----------------------------------|----------------------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---|-----|---------------|------|-----|
| MODIFICATION TITLE (Cont):       |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | Chlorofluorocarbon (CFC) Elimination 1-96-05-1003 |     |               |      |     |
| FINANCIAL PLAN: (\$ in Millions) |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
|                                  | FY 1996<br>and Prior |    | FY 1997 |    | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |     | TOTAL         |      |     |
|                                  | Qty                  | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty   | \$  | Qty           | \$   |     |
| RDT&E                            |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| PROCUREMENT                      |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| Kit Quantity                     |                      |    |         |    | 365     |     |         |    |         |    |         |    |         |    |         |    | 549   |     | 914           |      |     |
| Hardware                         |                      |    |         |    |         | 4.7 |         |    |         |    |         |    |         |    |         |    |   | 7.9 |               | 12.6 |     |
| Testing                          |                      |    |         |    |         | 0.6 |         |    |         |    |         |    |         |    |         |    |   |     |               | 0.6  |     |
| Installation of Hardware         |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 1996 & Prior Eqpt -- Kits     |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 1997 Eqpt -- Kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 1998 Eqpt -- Kits             |                      |    |         |    |         | 1.0 | 257     |    | 108     |    |         |    |         |    |         |    |   |     |               | 365  | 1.0 |
| FY 1999 Eqpt -- Kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 2000 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 2001 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 2002 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| FY 2003 Eqpt -- kits             |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |   |     |               |      |     |
| TC Equip-Kits                    |                      |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | 549   | 1.6 | 549           | 1.6  |     |
| Total Installment                |                      |    |         |    |         | 1.0 | 257     |    | 108     |    |         |    |         |    |         |    | 549   | 1.6 | 914           | 2.6  |     |
| Total Procurement Cos            |                      |    |         |    |         | 6.3 |         |    |         |    |         |    |         |    |         |    |   | 9.5 |               | 15.8 |     |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 2034    | 1500    | 673     | 2154    | 1746    |         |         |             | 8107       |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 20.3    | 14.7    | 6.5     | 18.4    | 17.8    | 0.0     | 0.0     | 0.0         | 77.7       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   |             | 0.0     | 0.0     | 20.3    | 14.7    | 6.5     | 18.4    | 17.8    | 0.0     | 0.0     | 0.0         | 77.7       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 20.3    | 14.7    | 6.5     | 18.4    | 17.8    | 0.0     | 0.0     | 0.0         | 77.7       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M240B Machine Gun is a ground version of the M240 Machine Gun, the 7.62mm Medium Machine Gun class weapon designed as a coaxial/pintle-mounted weapon for tanks and light armored vehicles. The M240B is an air cooled, link-belt fed, gas operated weapon. The weapon features fixed head space, which permits rapid changing of the barrels. The principle difference between the M240 and the M240B is the addition of a flash suppressor, front sight, carrying handle for the barrel, buttstock, pistol grip, bipod, heat shield and rear sight assembly. The M240B Machine Gun may also be tripod-mounted and used in conjunction with a traversing and elevating mechanism and a flex mount pintle.

**JUSTIFICATION:** The M240B Medium Machine Gun is an infantry version of the M240 Armored Machine Gun intended to replace the M60 Series Machine Gun in light infantry, mechanized infantry, and combat engineer units. The US Army has identified a need to upgrade its current inventory of 7.62mm Medium Machine Guns in order to provide the dismounted infantryman a more reliable, accurate, and lethal medium machine gun to suppress and destroy enemy personnel, lightly armored vehicles, and fortified positions.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>    |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240<br>SERIES (G13000) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|--|---|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                        |  | ID  | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |  | CD  | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |  |   | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Hardware (Incls Flex Mount & Blank Firing Device) |  | A   |              |      |  | 17102        | 2034 | 8                   | 13594        | 1500 | 9                      | 5623         | 673  | 8        |
| 2. Engineering Support<br>- In House Support         |  |   |              |      |  | 1553         |      |                     | 450          |      |                        | 262          |      |          |
| 3. Quality Assurance (ARDEC)                         |  |   |              |      |  | 117          |      |                     | 63           |      |                        | 41           |      |          |
| 4. Integrated Logistics Support                      |  |   |              |      |  | 79           |      |                     | 79           |      |                        | 61           |      |          |
| 5. Engineering Studies                               |  |   |              |      |  | 589          |      |                     |              |      |                        |              |      |          |
| 6. Engineering Change Proposals                      |  |   |              |      |  | 428          |      |                     | 342          |      |                        | 140          |      |          |
| 7. Testing (TECOM)                                   |  |   |              |      |  |              |      |                     |              |      |                        | 90           |      |          |
| 8. Fielding  |  |   |              |      |  | 423          |      |                     | 164          |      |                        | 279          |      |          |
| <b>TOTAL</b>   |  |   |              |      |  | <b>20291</b> |      |                     | <b>14692</b> |      |                        | <b>6496</b>  |      |          |

| Exhibit P-5a, Budget Procurement History and Planning   |                                      |                             |                 |            |                           |             |                    |   |                        | Date:             |  |
|---|--------------------------------------|-----------------------------|-----------------|------------|---------------------------|-------------|--------------------|---|------------------------|-------------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and<br>Other Combat Vehicles   |                                      |                             |                 |            | Weapon System Type:       |             |                    | P-1 Line Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |                        |                   |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location              | Contract Method<br>and Type | Location of PCO | Award Date | Date of First<br>Delivery | QTY<br>Each | Unit Cost<br>\$000 | Specs<br>Avail<br>Now?  | Date<br>Revsn<br>Avail | RFP Issue<br>Date |  |
| Hardware (Incls Flex Mount & Blank Firing Device)   |                                      |                             |                 |            |                           |             |                    |   |                        |                   |  |
| FY 97   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(1)            | ACALA           | Sep-97     | Mar-98                    | 2034        | 8                  | Yes   | No                     |                   |  |
| FY 98   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(2)            | ACALA           | Apr-98     | Oct-99                    | 673         | 9                  | Yes   | No                     |                   |  |
|   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(3)            | ACALA           | Apr-98     | Feb-00                    | 827         | 8                  | Yes   | No                     |                   |  |
| FY 99   | FN Manufacturing, Inc., Columbia, SC | SS/FFP<br>M-3(3)            | ACALA           | Jan-99     | Jul-00                    | 673         | 8                  | Yes   | No                     |                   |  |
| <b>REMARKS:</b> The M240 contract was established as a 3-year multiyear contract (FY97,99,00). FY98 Congressional funding will be used to exercise the 2nd and part of the 3rd years of the multiyear contract. |                                      |                             |                 |            |                           |             |                    |   |                        |                   |  |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |     |     |     |     |     |     |     |     |     |     |     |                  |     | Date:<br>February 1998 |     |     |     |     |     |             |     |     |     |       |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|------------------------|-----|-----|-----|-----|-----|-------------|-----|-----|-----|-------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 97   |     |                        |     |     |     |     |     |             |     |     |     | LATER |
|                                       |     |       |      |               |                       |                     | Calendar Year 96   |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 97 |     |                        |     |     |     |     |     |             |     |     |     |       |
|                                       |     |       |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                    | JAN | FEB | MAR | APR | MAY | JUN         | JUL | AUG | SEP |       |
| Hardware (Incls Flex Mount & Blank)   | 1   | FY 97 | A    | 2034          | 0                     | 2034                |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                        |     |     |     |     | A   | 2034        |     |     |     |       |
|                                       | 1   | FY 97 | FMS  | 278           | 0                     | 278                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                        |     |     |     |     | A   | 278         |     |     |     |       |
|                                       | 1   | FY 98 | A    | 673           | 0                     | 673                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                        |     |     |     |     |     | 673         |     |     |     |       |
|                                       | 1   | FY 98 | A    | 827           | 0                     | 827                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                        |     |     |     |     |     | 827         |     |     |     |       |
|                                       | 1   | FY 99 | A    | 673           | 0                     | 673                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                        |     |     |     |     |     | 673         |     |     |     |       |
| <b>TOTAL</b>                          |     |       |      | <b>4485</b>   | <b>0</b>              | <b>4485</b>         |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                        |     |     |     |     |     | <b>4485</b> |     |     |     |       |

  

| MFR | NAME / LOCATION                      | PRODUCTION RATES |       |      | REACHED D+ | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |  |
|-----|--------------------------------------|------------------|-------|------|------------|------------|-----------------|--------------|------------------|--------------------|---------|--|
|     |                                      | MIN.             | 1-8-5 | MAX. |            |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |  |
| 1   | FN Manufacturing, Inc., Columbia, SC | 90               | 200   | 350  | 10         | 1          | INITIAL         | 7            | 11               | 7                  | 18      | FY97 long admin leadtime due to extended negotiations with FNMI. FY97 delivery schedule extended to prevent a break in production. |
|     |                                      |                  |       |      |            |            | REORDER         | 7            | 6                | 19                 | 25      |  |
|     |                                      |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                                      |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |
|     |                                      |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                                      |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |
|     |                                      |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                                      |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                      |       |      |                  |                                | P-1 Item Nomenclature:<br>ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) |                  |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     | Date:<br>February 1998 |                       |     |     |     |     |     |     |
|---------------------------------------|--------------------------------------|-------|------|------------------|--------------------------------|--|------------------|-----------------|--------------|--------------|--------------|--|---------|-----|-----|-----|-----|-----|------------------|-----|-----|-----|------------------------|-----------------------|-----|-----|-----|-----|-----|-----|
| COST ELEMENTS                         | MFR                                  | FY    | SERV | PROC QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL DUE<br>AS OF<br>1 OCT  | Fiscal Year 00   |                 |              |              |              |  |         |     |     |     |     |     | Fiscal Year 01   |     |     |     |                        | L<br>A<br>T<br>E<br>R |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | Calendar Year 00 |                 |              |              |              |  |         |     |     |     |     |     | Calendar Year 01 |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | OCT              | NOV             | DEC          | JAN          | FEB          | MAR  | APR     | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB                    |                       | MAR | APR | MAY | JUN | JUL | AUG |
| Hardware (Incls Flex Mount & Blank)   | 1                                    | FY 97 | A    | 2034             | 2034                           |  |                  |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       | 1                                    | FY 97 | FMS  | 278              | 91                             | 187  | 175              | 12              |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       | 1                                    | FY 98 | A    | 673              |                                | 673  | 63               | 175             | 175          | 175          | 85           |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       | 1                                    | FY 98 | A    | 827              |                                | 827  |                  |                 |              |              | 90           | 175  | 175     | 175 | 37  |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       | 1                                    | FY 99 | A    | 673              |                                | 673  |                  |                 |              |              |              |  |         |     | 138 | 175 | 175 | 175 | 10               |     |     |     |                        |                       |     |     |     |     |     |     |
| TOTAL                                 |                                      |       |      | 4485             | 2125                           | 2360   | 238              | 187             | 175          | 175          | 175          | 175  | 175     | 175 | 175 | 175 | 175 | 175 | 175              | 10  |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | OCT              | NOV             | DEC          | JAN          | FEB          | MAR  | APR     | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB                    | MAR                   | APR | MAY | JUN | JUL | AUG | SEP |
| MFR                                   | NAME / LOCATION                      |       |      | PRODUCTION RATES |                                |  | REACHED          | ADMIN LEAD TIME |              | MFR          | TOTAL        |  | REMARKS |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      | MIN.             | 1-8-5                          | MAX.   | D +              | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. | After 1 Oct.   |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
| 1                                     | FN Manufacturing, Inc., Columbia, SC | 90    | 200  | 350              | 10                             | 1  | INITIAL          | 7               | 11           | 7            | 18           | FY97 long admin leadtime due to extended negotiations with FNMI. FY97 delivery schedule extended to prevent a break in production. |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | REORDER          | 7               | 6            | 19           | 25           |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | INITIAL          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | REORDER          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | INITIAL          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | REORDER          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | INITIAL          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | REORDER          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | INITIAL          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |
|                                       |                                      |       |      |                  |                                |  | REORDER          |                 |              |              |              |  |         |     |     |     |     |     |                  |     |     |     |                        |                       |     |     |     |     |     |     |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (G80718)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 317         | 97      | 105     | 80      | 98      | 73      | 103     | 163     | 181     | 142     | 887         | 2246       |
| Gross Cost       | 320.1       | 137.1   | 134.6   | 250.9   | 231.0   | 285.8   | 295.3   | 430.0   | 457.8   | 391.8   | 2328.3      | 5262.6     |
| Less PY Adv Proc |             |         |         |         |         |         |         | 37.5    | 42.0    | 33.0    | 151.3       | 263.8      |
| Plus CY Adv Proc |             |         |         |         |         |         | 60.6    | 38.3    | 13.6    |         | 151.3       | 263.8      |
| Net Proc (P-1)   | 320.1       | 137.1   | 134.6   | 250.9   | 231.1   | 285.9   | 355.9   | 430.8   | 429.4   | 358.8   | 2328.3      | 5262.8     |
| Initial Spares   |             |         | 4.9     | 2.3     | 0.3     | 7.1     | 9.3     | 11.8    | 11.0    | 11.2    | 83.9        | 141.8      |
| Total Proc Cost  | 320.1       | 137.1   | 139.5   | 253.2   | 231.4   | 293.0   | 365.2   | 442.6   | 440.4   | 370.0   | 2412.2      | 5404.6     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 1.0         | 1.4     | 1.3     | 3.2     | 2.4     | 4.0     | 3.0     | 2.7     | 2.6     | 2.8     | 2.7         | 2.4        |

**DESCRIPTION:** The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

**JUSTIFICATION:** The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers and 35 A3's in FY97, 80 A0-A2ODS and 18 A3's in FY98, and all A3's thereafter.

A four year multi-year contract is planned for FY's 00-03.

**Exhibit P-40C Budget Item Justification Sheet**

Date

February 1998

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

P-1 Item Nomenclature

BRADLEY BASE SUSTAINMENT (G80718)

Program Elements for Code B Items

Code

Other Related Program Elements

| A3 Advanced Procurement Detail (in Mils): | Fiscal Year | 2000 | 2001   | 2002   | 2003   |
|---|-------------|------|--------|--------|--------|
| <b>FY TOA</b>                             |             |      |        |        |        |
| FY2000 for FY2001 (memo)                  |             | 37.5 |        |        |        |
| FY2000 for FY2002 (memo)                  |             | 20.3 |        |        |        |
| FY2000 for FY2003 (memo)                  |             | 2.8  |        |        |        |
| FY2001 (memo)                             |             |      | (37.5) |        |        |
| FY2001 for FY2002 (memo)                  |             |      | 21.7   |        |        |
| FY2001 for FY2003 (memo)                  |             |      | 16.6   |        |        |
| FY2002 (memo)                             |             |      |        | (42.0) |        |
| FY2002 for FY2003 (memo)                  |             |      |        | 13.6   |        |
| FY2003 (memo)                             |             |      |        |        | (33.0) |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |               |      | P-1 Line Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (G80718) |               |      | Weapon System Type: |               |      | Date:<br>February 1998 |               |      |          |
|---|--|--|---------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b>  |      |  | <b>FY 97</b>  |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b>  |      |          |
|   |  | CD   | TotalCost     | Qty  | UnitCost   | TotalCost     | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost     | Qty  | UnitCost |
|   |  |  | \$000         | Each | \$000  | \$000         | Each | \$000               | \$000         | Each | \$000                  | \$000         | Each | \$000    |
| BRADLEY BASE SUSTAINMENT (M2A2/)                  |  |  | 134613        |      |  | 75042         |      |                     | 115165        |      |                        | 13280         |      |          |
| BRADLEY BASE SUSTAINMENT (M2A3)                   |  |  |               |      |  | 175878        |      |                     | 115878        |      |                        | 272564        |      |          |
| <b>TOTAL</b>                                      |  |  | <b>134613</b> |      |  | <b>250920</b> |      |                     | <b>231043</b> |      |                        | <b>285844</b> |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2/) (G80716)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 317         | 97      | 105     | 45      | 80      |         |         |         |         |         |             | 644        |
| Gross Cost       | 320.1       | 137.1   | 134.6   | 75.0    | 115.2   | 13.3    | 3.3     | 6.3     | 0.0     | 0.0     | 0.0         | 804.8      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 320.1       | 137.1   | 134.6   | 75.0    | 115.2   | 13.3    | 3.3     | 6.3     | 0.0     | 0.0     | 0.0         | 804.8      |
| Initial Spares   |             |         | 4.9     | 2.3     |         |         |         |         |         |         |             | 7.2        |
| Total Proc Cost  | 320.1       | 137.1   | 139.5   | 77.3    | 115.2   | 13.3    | 3.3     | 6.3     | 0.0     | 0.0     | 0.0         | 812.0      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 1.0         | 1.4     | 1.3     | 1.7     | 1.4     |         |         |         |         |         |             | 1.3        |

DESCRIPTION: The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

Quantities are all A0-A2's in FY96 and prior, 45 A0-A2 Linebackers FY97, and 80 A0-A2ODS in FY 98.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |               |      | P-1 Line Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (M2A2/<br>(G80716) |              |      | Weapon System Type: |               |      | Date:<br>February 1998 |              |      |          |
|---|--|--|---------------|------|--|--------------|------|---------------------|---------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b>  |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost     | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000         | Each | \$000  | \$000        | Each | \$000               | \$000         | Each | \$000                  | \$000        | Each | \$000    |
| 1. VEHICLE  |  |  | 60371         | 105  | 575  | 30600        | 45   | 680                 | 49867         | 80   | 623                    |              |      |          |
| 2. T2SS   |  |  | 8886          | 75   | 118  |              |      |                     | 20000         | 80   | 250                    |              |      |          |
| 3. Engine   |  |  | 4965          | 105  | 47   |              |      |                     | 4000          | 80   | 50                     |              |      |          |
| 4. Track  |  |  | 1933          | 105  | 18   | 829          | 45   | 18                  | 1497          | 80   | 19                     |              |      |          |
| 5. Other GFE (Buy)                                |  |  | 6781          | 105  | 65   | 4832         | 45   | 107                 | 8827          | 80   | 110                    |              |      |          |
| 6. Other GFE ( Reman)                             |  |  | 11109         | 105  | 106  | 5043         | 45   | 112                 | 9107          | 80   | 114                    |              |      |          |
| 7. STINGER Kits                                   |  |  |               |      |  | 20464        | 99   | 207                 |               |      |                        |              |      |          |
| <b>SUBTOTAL</b>                                   |  |  | <b>94045</b>  |      |  | <b>61768</b> |      |                     | <b>93298</b>  |      |                        |              |      |          |
| 8. Govt Test & Eval                               |  |  | 340           |      |  |              |      |                     |               |      |                        | 1787         |      |          |
| 9. Engineering-Contractor                         |  |  | 17845         |      |  | 5732         |      |                     | 4100          |      |                        | 4553         |      |          |
| 10. Engineering-Government                        |  |  | 4270          |      |  |              |      |                     |               |      |                        |              |      |          |
| 11. Project Management Admin                      |  |  | 2644          |      |  |              |      |                     |               |      |                        |              |      |          |
| 12. Fielding                                      |  |  | 7842          |      |  | 7542         |      |                     | 3036          |      |                        | 6940         |      |          |
| 13. Reimbursable Matrix Supt                      |  |  | 2155          |      |  |              |      |                     |               |      |                        |              |      |          |
| <b>SUBTOTAL</b>                                   |  |  | <b>35096</b>  |      |  | <b>13274</b> |      |                     | <b>7136</b>   |      |                        | <b>13280</b> |      |          |
| 14. PSE   |  |  | 5472          |      |  |              |      |                     | 14731         |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>134613</b> |      |  | <b>75042</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |
| <b>Gross P-1 End Cost</b>                         |  |  | <b>134613</b> |      |  | <b>75042</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |
| Less: Prior Year Adv Proc (by PY FY)              |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| <b>Net P-1 Full Funding Cost</b>                  |  |  | <b>134613</b> |      |  | <b>75042</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |
| Plus: P-1 CY Adv Proc                             |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| Other Non P-1 Costs                               |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| Initial Spares                                    |  |  | 4854          |      |  | 2271         |      |                     |               |      |                        |              |      |          |
| Mods  |  |  |               |      |  |              |      |                     |               |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>139467</b> |      |  | <b>77313</b> |      |                     | <b>115165</b> |      |                        | <b>13280</b> |      |          |



**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
 Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2/) (G80716)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. VEHICLE</b>                  |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | UDLP, York PA           | SS/FFP                   | TACOM           | Jan-96     | May-97                 | 105      | 575             | YES              | NO               |                |
| FY 97                              | UDLP, York PA           | SS/FFP                   | TACOM           | Jul-97     | Nov-97                 | 45       | 680             | YES              | NO               |                |
| FY 98                              | UDLP, York PA           | SS/FFP                   | TACOM           | Aug-98     | Nov-99                 | 80       | 623             | YES              | NO               |                |
| <b>2. T2SS</b>                     |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | HAC, LaGrange GA        | SS/FFP                   | AMCOM           | Feb-96     | Mar-97                 | 75       | 118             | YES              | NO               |                |
| FY 98                              | HAC, LaGrange GA        | SS/FFP                   | AMCOM           | Nov-98     | Aug-99                 | 80       | 250             | YES              | NO               |                |
| <b>3. Engine</b>                   |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | Cummins, Columbus IN    | SS/FFP                   | TACOM           | Jan-96     | Mar-96                 | 105      | 47              | YES              | NO               |                |
| FY 98                              | Cummins, Columbus IN    | SS/FFP                   | TACOM           | Aug-98     | Nov-98                 | 80       | 50              | YES              | NO               |                |
| <b>4. Track</b>                    |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | Goodyear, Akron OH      | SS/FFP                   | TACOM           | Feb-96     | Feb-97                 | 105      | 18              | YES              | NO               |                |
| FY 97                              | Goodyear, Akron OH      | SS/FFP                   | TACOM           | Sep-97     | Oct-97                 | 45       | 18              | YES              | NO               |                |
| FY 98                              | Goodyear, Akron OH      | SS/FFP                   | TACOM           | Sep-98     | Sep-99                 | 80       | 19              | YES              | NO               |                |
| <b>7. STINGER Kits</b>             |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | Boeing Corp             | SS/FFP                   | AMCOM           | Mar-97     | Nov-97                 | 99       | 207             | YES              | NO               |                |

REMARKS:







**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717)

Program Elements for Code B Items: 023735A  
 Code: B  
 Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 35      | 18      | 73      | 103     | 163     | 181     | 142     | 887         | 1602       |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 175.9   | 115.9   | 272.6   | 292.0   | 423.7   | 457.8   | 391.8   | 2328.3      | 4458.0     |
| Less PY Adv Proc |             |         |         |         |         |         |         | 37.5    | 42.0    | 33.0    | 151.3       | 263.8      |
| Plus CY Adv Proc |             |         |         |         |         |         | 60.6    | 38.3    | 13.6    |         | 151.3       | 263.8      |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 175.9   | 115.9   | 272.6   | 352.6   | 424.5   | 429.4   | 358.8   | 2328.3      | 4458.0     |
| Initial Spares   |             |         |         |         | 0.3     | 7.1     | 9.3     | 11.8    | 11.0    | 11.2    | 83.9        | 134.6      |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 175.9   | 116.2   | 279.7   | 361.9   | 436.3   | 440.4   | 370.0   | 2412.2      | 4592.6     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         | 5.0     | 6.5     | 3.8     | 2.9     | 2.7     | 2.6     | 2.8     | 2.7         | 2.9        |

**DESCRIPTION:** The Bradley Base Sustainment Program initiated a program to upgrade first generation Bradleys(A0) into the A2 configuration and bridge the production gap until the introduction of the A3 upgrade vehicles. FY99 marks the third production year of the A3 configuration. The upgraded A3 Bradley Fighting Vehicle will facilitate enhanced command and control, provide greater lethality, survivability, mobility, and sustainability required to defeat current and future threat forces while remaining operationally compatible with the main battle tank.

**JUSTIFICATION:** The FY99 Budget will provide the third year of LRIP for the A3 upgrade program. The M2A3 upgrade program will provide digital communications and target acquisition upgrades required to fight as a member of the combined arms team. These vehicles will be remanufactured in the prime contractor's plant to preserve the critical skills and vendor base to allow for future modernization.

A four year multi-year contract is planned for FY's 00-03.

**Exhibit P-40C Budget Item Justification Sheet**

Date  
February 1998

|  |   |
|--|---|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | P-1 Item Nomenclature<br>BRADLEY BASE SUSTAINMENT (M2A3) (G80717) |
|--|---|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| A3 Advanced Procurement Detail (in Mils): | Fiscal Year | 2000 | 2001   | 2002   | 2003   |
|---|-------------|------|--------|--------|--------|
| FY TOA                                    |             |      |        |        |        |
| FY2000 for FY2001 (memo)                  |             | 37.5 |        |        |        |
| FY2000 for FY2002 (memo)                  |             | 20.3 |        |        |        |
| FY2000 for FY2003 (memo)                  |             | 2.8  |        |        |        |
| FY2001 (memo)                             |             |      | (37.5) |        |        |
| FY2001 for FY2002 (memo)                  |             |      | 21.7   |        |        |
| FY2001 for FY2003 (memo)                  |             |      | 16.6   |        |        |
| FY2002 (memo)                             |             |      |        | (42.0) |        |
| FY2002 for FY2003 (memo)                  |             |      |        | 13.6   |        |
| FY2003 (memo)                             |             |      |        |        | (33.0) |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (M2A3)<br>(G80717) |               |      | Weapon System Type: |               |      | Date:<br>February 1998 |               |      |          |
|---|--|--|--------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b>  |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b>  |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost     | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost     | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000  | \$000         | Each | \$000               | \$000         | Each | \$000                  | \$000         | Each | \$000    |
| 1. Vehicle  |  |  |              |      |  | 68348         | 35   | 1953                | 34785         | 18   | 1933                   | 59134         | 73   | 810      |
| 2. IBAS   |  |  |              |      |  | 35706         | 35   | 1020                | 18699         | 18   | 1039                   | 44214         | 73   | 606      |
| 3. FLIR   |  |  |              |      |  | 20980         | 27   | 777                 | 14377         | 27   | 532                    | 36425         | 76   | 479      |
| 4. Other GFE                                      |  |  |              |      |  | 3212          | 35   | 92                  | 2224          | 18   | 124                    | 55959         | 73   | 767      |
| 5. Reman (General Dynamics)                       |  |  |              |      |  |               |      |                     |               |      |                        | 6049          | 73   | 83       |
| 6. Pre Mod Depot Maint                            |  |  |              |      |  |               |      |                     |               |      |                        | 4290          | 73   | 59       |
| 7. SSES   |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| 8. Linebacker Components                          |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  | <b>128246</b> |      |                     | <b>70085</b>  |      |                        | <b>206071</b> |      |          |
| 9. Engineering--Government                        |  |  |              |      |  | 7234          |      |                     | 11777         |      |                        | 15180         |      |          |
| 10. Engineering--Contractor                       |  |  |              |      |  | 25711         |      |                     | 21422         |      |                        | 27765         |      |          |
| 11. Project Management Administration             |  |  |              |      |  | 1843          |      |                     | 1882          |      |                        | 2314          |      |          |
| 12. Reimbursable Matrix Support                   |  |  |              |      |  | 1945          |      |                     | 2544          |      |                        | 2443          |      |          |
| 13. Test and Evaluation                           |  |  |              |      |  | 861           |      |                     | 760           |      |                        | 277           |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  | <b>37594</b>  |      |                     | <b>38385</b>  |      |                        | <b>47979</b>  |      |          |
| 14. Cummins Engine Life-of-Type (LOT) Buy         |  |  |              |      |  | 8038          |      |                     |               |      |                        |               |      |          |
| 15. Peculiar Support Equipment                    |  |  |              |      |  | 2000          |      |                     | 5600          |      |                        | 7837          |      |          |
| 16. Classroom Spares                              |  |  |              |      |  |               |      |                     |               |      |                        | 2149          |      |          |
| 17. Fielding                                      |  |  |              |      |  |               |      |                     | 1808          |      |                        | 8528          |      |          |
| <b>SUBTOTAL</b>                                   |  |  |              |      |  | <b>10038</b>  |      |                     | <b>7408</b>   |      |                        | <b>18514</b>  |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | <b>175878</b> |      |                     | <b>115878</b> |      |                        | <b>272564</b> |      |          |
| <b>Gross P-1 End Cost</b>                         |  |  |              |      |  | <b>175878</b> |      |                     | <b>115878</b> |      |                        | <b>272564</b> |      |          |
| Less: Prior Year Adv Proc                         |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| <b>Net P-1 Full Funding Cost</b>                  |  |  |              |      |  | <b>175878</b> |      |                     | <b>115878</b> |      |                        | <b>272564</b> |      |          |
| Plus: P-1 CY Adv Proc                             |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| Other Non P-1 Costs                               |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| Initial Spares                                    |  |  |              |      |  |               |      |                     | 293           |      |                        | 7130          |      |          |
| Mods  |  |  |              |      |  |               |      |                     |               |      |                        |               |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | <b>175878</b> |      |                     | <b>116171</b> |      |                        | <b>279694</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked**  
 Weapon System Type: **Combat Vehicles**  
 P-1 Line Item Nomenclature: **BRADLEY BASE SUSTAINMENT (M2A3) (G80717)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location     | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-----------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. Vehicle</b>                  |                             |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | UDLP, York PA               | SS/FFP                   | TACOM           | Jul-97     | Oct-98                 | 35       | 1953            | YES              | NO               |                |
| FY 98                              | UDLP, York PA               | SS/FFP                   | TACOM           | Nov-97     | May-99                 | 18       | 1933            | YES              | NO               |                |
| FY 99                              | UDLP, York PA               | SS/FFP                   | TACOM           | Dec-98     | Mar-00                 | 73       | 810             | YES              | NO               |                |
| <b>2. IBAS</b>                     |                             |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | RAYTHEON TI,TX/HAC,GA       | C/FFP                    | AMCOM           | Sep-97     | Aug-98                 | 35       | 1020            | YES              | NO               |                |
| FY 98                              | RAYTHEON TI,TX/HAC,GA       | C/FFP                    | AMCOM           | Dec-97     | Apr-99                 | 18       | 1039            | YES              | NO               |                |
| FY 99                              | TBD                         | C/FFP                    | AMCOM           | Jan-99     | Feb-00                 | 73       | 606             | YES              | NO               |                |
| <b>3. FLIR</b>                     |                             |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97                              | TEXAS INSTRUMENT, DALLAS TX | SS/FFP                   | NVL             | Mar-97     | Apr-98                 | 27       | 777             | YES              | NO               |                |
| FY 98                              | TEXAS INSTRUMENT, DALLAS TX | SS/FFP                   | NVL             | Jan-98     | Jan-99                 | 27       | 532             | YES              | NO               |                |
| FY 99                              | TEXAS INSTRUMENT, DALLAS TX | SS/FFP                   | NVL             | Jan-99     | Dec-99                 | 76       | 479             | YES              | NO               |                |

REMARKS:



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |                  |                                |                              | P-1 Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (M2A3) (G80717) |             |             |             |             |             |             | Date:<br>February 1998 |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|---------------------------------------|-----|-------|------|------------------|--------------------------------|------------------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT | Fiscal Year 96   |             |             |             |             |             |             |                        |             |             |             |             | Fiscal Year 97   |             |             |             |             |             |             |             |             |             |             |             | L<br>A<br>S<br>T<br>E<br>R |
|                                       |     |       |      |                  |                                |                              | Calendar Year 96   |             |             |             |             |             |             |                        |             |             |             |             | Calendar Year 97 |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              | O<br>C<br>T  | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y            | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                            |
| 1. Vehicle                            |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 97 | A    | 35               | 0                              | 35                           |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 98 | A    | 18               | 0                              | 18                           |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 99 | A    | 73               | 0                              | 73                           |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY00  | A    | 103              | 0                              | 103                          |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY01  | A    | 163              | 0                              | 163                          |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY02  | A    | 181              | 0                              | 181                          |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY03  | A    | 142              | 0                              | 142                          |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      | 715              |                                | 715                          |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |
|                                       |     |       |      |                  |                                |                              |  |             |             |             |             |             |             |                        |             |             |             |             |                  |             |             |             |             |             |             |             |             |             |             |             |                            |

| MFR | NAME / LOCATION | PRODUCTION RATES |       |      | REACHED<br>D + | MFR<br>Number | ADMIN LEAD TIME |              | MFR<br>After 1 Oct. | TOTAL<br>After 1 Oct. | REMARKS   |
|-----|-----------------|------------------|-------|------|----------------|---------------|-----------------|--------------|---------------------|-----------------------|---|
|     |                 | MIN.             | 1-8-5 | MAX. |                |               | Prior 1 Oct.    | After 1 Oct. |                     |                       |   |
| 1   | UDLP, York PA   | TBD              | TBD   | TBD  |                |               |                 | 10           | 15                  | 25                    | Due to UDLP downsizing/reorganization and multi product/multi program production planning initiatives, realistic min/max rates are not available. |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |
|     |                 |                  |       |      |                |               |                 |              |                     |                       |   |





| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |       |                  |               |                       |                     | P-1 Item Nomenclature:<br>BRADLEY BASE SUSTAINMENT (M2A3) (G80717) |                 |              |              |              |   |       |       |       |       |       |       |                  | Date:<br>February 1998 |       |       |       |       |       |       |       |       |       |       |           |
|---------------------------------------|-----------------|-------|------------------|---------------|-----------------------|---------------------|--|-----------------|--------------|--------------|--------------|---|-------|-------|-------|-------|-------|-------|------------------|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| COST ELEMENTS                         | MFR             | FY    | SERV             | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 02   |                 |              |              |              |   |       |       |       |       |       |       | Fiscal Year 03   |                        |       |       |       |       |       |       |       |       |       |       | L A T E R |
|                                       |                 |       |                  |               |                       |                     | Calendar Year 02   |                 |              |              |              |   |       |       |       |       |       |       | Calendar Year 03 |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     | O C T  | N O V           | D E C        | J A N        | F E B        | M A R   | A P R | M A Y | J U N | J U L | A U G | S E P | O C T            | N O V                  | D E C | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |           |
| 1. Vehicle                            |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       | 1               | FY 97 | A                | 35            | 35                    |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       | 1               | FY 98 | A                | 18            | 18                    |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       | 1               | FY 99 | A                | 73            | 73                    |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       | 1               | FY00  | A                | 103           | 54                    | 49                  | 9  | 10              | 10           | 10           | 10           |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       | 1               | FY01  | A                | 163           | 0                     | 163                 |  |                 |              |              | 13           | 13  | 13    | 13    | 13    | 14    | 14    | 14    | 14               | 14                     | 14    | 14    |       |       |       |       |       |       |       |       |           |
|                                       | 1               | FY02  | A                | 181           | 0                     | 181                 |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 76    |       |       |           |
|                                       | 1               | FY03  | A                | 142           | 0                     | 142                 |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       | 142   |       |       |       |           |
|                                       |                 |       |                  | 715           | 180                   | 535                 |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       | 535   |       |       |       |           |
| MFR                                   | NAME / LOCATION |       | PRODUCTION RATES |               |                       | REACHED             | MFR Number   | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       | MIN.             | 1-8-5         | MAX.                  | D +                 |  | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. | Due to UDLP downsizing/reorganization and multi product/multi program production planning initiatives, realistic min/max rates are not available. |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
| 1                                     | UDLP, York PA   |       | TBD              | TBD           | TBD                   |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |
|                                       |                 |       |                  |               |                       |                     |  |                 |              |              |              |   |       |       |       |       |       |       |                  |                        |       |       |       |       |       |       |       |       |       |       |           |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M4 CARBINE MODS (GB3007)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 0.9     | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0         | 20.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.9     | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0         | 20.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.9     | 4.5     | 4.9     | 5.1     | 5.4     | 0.0     | 0.0     | 0.0     | 0.0         | 20.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M4 Carbine Modification Program provides a close combat optic, a modular weapon suite, an improved buttstock, a top carry sling and a permanently affixed back-up iron sight for the M4 Carbine. Also it provides the capability for firing the M203A1 Grenade Launcher (GL) with the M4 Carbine.

**JUSTIFICATION:** The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons based upon the mission. The top sling maintains the Carbine in an upright position freeing the user's hands for other tasks. The permanent back-up, rear optive, iron sight provides that capability in the event it becomes immediately necessary. The M203A1 Grenade Launcher insures compatibility with the M4 Carbine. The improved buttstock provides the rifleman an ergonomically optimized buttstock for the M4 Carbine.

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |   |
|--|---|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles | P-1 Item Nomenclature<br>M4 CARBINE MODS (GB3007) |
|--|---|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| Description                        | Classification | Fiscal Years |            |            |            |            |            |            |            |            | TC         | Total       |
|------------------------------------|----------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| OSIP NO.                           |                | FY 1996      | FY 1997    | FY 1998    | FY 1999    | FY 2000    | FY 2001    | FY 2002    | FY 2003    |            |            |             |
| Close Combat Optics (M4 Carbine)   |                |              |            |            |            |            |            |            |            |            |            |             |
| TBD1                               | Operational    | 0.9          | 3.1        | 1.1        | 2.6        | 5.4        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 13.1        |
| M203 for M4 Carbine                |                |              |            |            |            |            |            |            |            |            |            |             |
| TBD2                               | Operational    | 0.0          | 0.4        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.4         |
| Modular Weapon System (M4 Carbine) |                |              |            |            |            |            |            |            |            |            |            |             |
| TBD3                               | Operational    | 0.0          | 1.0        | 3.1        | 1.1        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 5.2         |
| M4 Improved Buttstock              |                |              |            |            |            |            |            |            |            |            |            |             |
| TBD4                               | Operational    | 0.0          | 0.0        | 0.7        | 1.4        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 2.1         |
| <b>Totals</b>                      |                | <b>0.9</b>   | <b>4.5</b> | <b>4.9</b> | <b>5.1</b> | <b>5.4</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>20.8</b> |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |
|                                    |                |              |            |            |            |            |            |            |            |            |            |             |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |              |   |   |          |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|--------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Close Combat Optics (M4 Carbine) TBD1   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M4 Carbine, M68 Sight Reflex  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>The M68 Sight will be installed on the M4 Carbine. The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity. The close combat optic gives the soldier greater hit probability in daylight, low level, wet weather and other adverse conditions. |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |               |   |                      | ACCOMPLISHED |   |   |          |   |        |   |
| Development/Operational Test  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 1/2Q96       |   |   |          |   |        |   |
| Type Classification (LRIP)  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q96         |   |   |          |   |        |   |
| Production Contract Award   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q96         |   |   |          |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 1Q97         |   |   |          |   |        |   |
| First Unit Equipped   |  |                  |   |   |   |                          |   |   |   | 2Q98           |   |               |   |                      |              |   |   |          |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |              |   |   | FY 2001  |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |              |   |   | To       |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 1 Months       |   |               |   | PRODUCTION LEADTIME: |              |   |   | 6 Months |   |        |   |
| Contract Dates:   |  | FY 1997 Jul 97   |   |   |   | FY 1998 Jan 98           |   |   |   | FY 1999 Jan 99 |   |               |   |                      |              |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 Jul 98   |   |   |   | FY 1998 Mar 99           |   |   |   | FY 1999 Jun 99 |   |               |   |                      |              |   |   |          |   |        |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Close Combat Optics (M4 Carbine) TBD1

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |       | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |        |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|-----|----|-------|----|--------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |        |
| RDT&E                           |                   | 1.469 |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    | 1.469  |
| PROCUREMENT                     |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Kit Quantity                    | 3888              |       | 14932   |       | 4480    |       | 12005   |       | 20785   |       |         |    |         |    |         |    |     |    |       |    | 56090  |
| Installation Kits               |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Equipment                       |                   | 0.746 |         | 2.863 |         | 0.859 |         | 2.401 |         | 5.196 |         |    |         |    |         |    |     |    |       |    | 12.065 |
| Equipment, Nonrecurring         |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Engineering Support             |                   | 0.084 |         | 0.140 |         | 0.139 |         | 0.138 |         | 0.115 |         |    |         |    |         |    |     |    |       |    | 0.616  |
| Testing                         |                   | 0.050 |         | 0.050 |         | 0.050 |         | 0.050 |         | 0.050 |         |    |         |    |         |    |     |    |       |    | 0.250  |
| Integrated Logistical Support   |                   | 0.010 |         | 0.020 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |     |    |       |    | 0.090  |
| Fielding                        |                   | 0.010 |         | 0.020 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |     |    |       |    | 0.090  |
| Other                           |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Interim Contractor Support      |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Installation of Hardware        |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       | 3888    |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    | 3888   |
| FY 1997 Eqpt -- Kits            |                   |       |         |       | 511     |       | 14421   |       |         |       |         |    |         |    |         |    |     |    |       |    | 14932  |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 4480    |       |         |       |         |    |         |    |         |    |     |    |       |    | 4480   |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       | 1500    |       | 10505   |       |         |    |         |    |         |    |     |    |       |    | 12005  |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |       | 20785   |       |         |    |         |    |         |    |     |    |       |    | 20785  |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |       |         |       |         |    |         |    |         |    |     |    |       |    |        |
| Total Installment               |                   |       |         |       | 4399    |       | 20401   |       | 31290   |       |         |    |         |    |         |    |     |    |       |    | 56090  |
| Total Procurement Cos           |                   | 0.9   |         | 3.1   |         | 1.1   |         | 2.6   |         | 5.4   |         |    |         |    |         |    |     |    |       |    | 13.1   |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   | Date     |   | February 1998 |   |                      |              |   |   |          |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------|---|---------------|---|----------------------|--------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: M203 for M4 Carbine TBD2  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>The Army units assigned the M4 Carbine will obtain the capability to fire the M203 Grenade Launcher (GL) with the M4 Carbine. |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   | PLANNED  |   |               |   |                      | ACCOMPLISHED |   |   |          |   |        |   |
| Developmental/Operational Tests   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      | 1Q97         |   |   |          |   |        |   |
| Type Classification/Milestone III   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      | 4Q97         |   |   |          |   |        |   |
| Production Contract Award   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      | 4Q97         |   |   |          |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   | 2Q98     |   |               |   |                      |              |   |   |          |   |        |   |
| First Unit Equipped   |  |                  |   |   |   |                          |   |   |   | 3Q98     |   |               |   |                      |              |   |   |          |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   | FY 2000              |              |   |   | FY 2001  |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004  |   |               |   | FY 2005              |              |   |   | To       |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |               |   |                      |              |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 9 Months |   |               |   | PRODUCTION LEADTIME: |              |   |   | 7 Months |   |        |   |
| Contract Dates:   |  | FY 1997 Sep 97   |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   |                      |              |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 Mar 98   |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |               |   |                      |              |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M203 for M4 Carbine TBD2

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |       |
|---------------------------------|-------------------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |       |
| RDT&E                           |                   | 0.631 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.631 |
| PROCUREMENT                     |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Kit Quantity                    |                   |       | 2576    |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 2576  |
| Installation Kits               |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Equipment                       |                   |       |         | 0.222 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.222 |
| Equipment, Nonrecurring         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Engineering Support             |                   |       |         | 0.070 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.070 |
| Testing                         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Integrated Logistical Support   |                   |       |         | 0.040 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.040 |
| Fielding                        |                   |       |         | 0.030 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.030 |
| Other                           |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Interim Contractor Support      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation of Hardware        |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1997 Eqpt -- Kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1998 Eqpt -- Kits            |                   |       |         |       | 2576    |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 2576  |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| TC Equip-Kits                   |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Total Installment               |                   |       |         |       | 2576    |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 2576  |
| Total Procurement Cos           |                   |       |         | 0.4   |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |    | 0.4   |

| INDIVIDUAL MODIFICATION  |  |                  |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |              |   |   |           |   |        |   |
|--|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|--------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: Modular Weapon System (M4 Carbine) TBD3  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED:  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The modular weapon is a system of mounting rails/methods to allow the custom configuration of M4 Carbines with ancillary items such as optics, night sights, IR laser pointers, the grenade launcher, back-up sights, etc., based upon mission requirements. |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |               |   |                      | ACCOMPLISHED |   |   |           |   |        |   |
| Developmental/Operational Tests  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 3Q95-2Q96    |   |   |           |   |        |   |
| Milestone III Production Decision  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
| Production Contract Award  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
| First Production Hardware Delivered  |  |                  |   |   |   |                          |   |   |   | 3Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| First Unit Equipped  |  |                  |   |   |   |                          |   |   |   | 4Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| Installation Schedule:   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| Pr Yr  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |              |   |   | FY 2001   |   |        |   |
| Totals   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
|  |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |              |   |   | To        |   | Totals |   |
|  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months       |   |               |   | PRODUCTION LEADTIME: |              |   |   | 13 Months |   |        |   |
| Contract Dates:  |  | FY 1997 Aug 97   |   |   |   | FY 1998 May 98           |   |   |   | FY 1999 Nov 99 |   |               |   |                      |              |   |   |           |   |        |   |
| Delivery Date:   |  | FY 1997 Apr 98   |   |   |   | FY 1998 Oct 99           |   |   |   | FY 1999 Dec 00 |   |               |   |                      |              |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Modular Weapon System (M4 Carbine) TBD3

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |       |       |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$    |       |
| RDT&E                           |                   | 1.158 |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 1.158 |
| PROCUREMENT                     |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Kit Quantity                    |                   |       | 3332    |       | 10829   |       | 2500    |       |         |    |         |    |         |    |         |    |     |    |       | 16661 |       |
| Installation Kits               |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Equipment                       |                   |       |         | 0.880 |         | 2.761 |         | 0.896 |         |    |         |    |         |    |         |    |     |    |       |       | 4.537 |
| Equipment, Nonrecurring         |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Engineering Support             |                   |       |         | 0.058 |         | 0.200 |         | 0.125 |         |    |         |    |         |    |         |    |     |    |       |       | 0.383 |
| Testing                         |                   |       |         | 0.020 |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 0.020 |
| Integrated Logistical Support   |                   |       |         | 0.015 |         | 0.025 |         | 0.030 |         |    |         |    |         |    |         |    |     |    |       |       | 0.070 |
| Fielding                        |                   |       |         | 0.025 |         | 0.162 |         | 0.038 |         |    |         |    |         |    |         |    |     |    |       |       | 0.225 |
| Other                           |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Interim Contractor Support      |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation of Hardware        |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 3332  |
| FY 1997 Eqpt -- Kits            |                   |       |         |       | 2000    |       | 1332    |       |         |    |         |    |         |    |         |    |     |    |       |       | 10829 |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 8168    |       | 2661    |    |         |    |         |    |         |    |     |    |       |       | 2500  |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       |         |       | 2500    |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Total Installment               |                   |       |         |       | 2000    |       | 9500    |       | 5161    |    |         |    |         |    |         |    |     |    |       |       | 16661 |
| Total Procurement Cos           |                   |       |         | 1.0   |         | 3.1   |         | 1.1   |         |    |         |    |         |    |         |    |     |    |       |       | 5.2   |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   |          |   |   |   | Date                 |   | February 1998 |   |          |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------|---|---|---|----------------------|---|---------------|---|----------|---|--------|---|
| MODIFICATION TITLE: <b>M4 Improved Buttstock TBD4</b>   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The M4 Improved Buttstock provides the rifleman with features for obtaining the proper shooting form; stock/shoulder weld and stock/cheek weld.<br><br>This program provides the rifleman with an ergonomically optimized buttstock for the M4 Carbine. |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
|   |  |                  |   |   |   |                          |   |   |   | PLANNED  |   |   |   |                      |   | ACCOMPLISHED  |   |          |   |        |   |
| Finalize Design   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   | 1Q98          |   |          |   |        |   |
| Contract Award (Limited Rate)   |  |                  |   |   |   |                          |   |   |   | 2Q98     |   |   |   |                      |   |               |   |          |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   | 3Q98     |   |   |   |                      |   |               |   |          |   |        |   |
| First Unit Equipped/ECP   |  |                  |   |   |   |                          |   |   |   | 1Q99     |   |   |   |                      |   |               |   |          |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999  |   |   |   | FY 2000              |   |               |   | FY 2001  |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3 | 4 | 1                    | 2 | 3             | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004  |   |   |   | FY 2005              |   |               |   | To       |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1        | 2 | 3 | 4 | 1                    | 2 | 3             | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |          |   |   |   |                      |   |               |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 1 Months |   |   |   | PRODUCTION LEADTIME: |   |               |   | 6 Months |   |        |   |
| Contract Dates:   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | Feb 98   |   |   |   | FY 1999              |   |               |   | Oct 98   |   |        |   |
| Delivery Date:  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | Apr 98   |   |   |   | FY 1999              |   |               |   | Mar 99   |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): M4 Improved Buttstock TBD4

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |    | FY 1998 |       | FY 1999 |     | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |       |
|---------------------------------|-------------------|-------|---------|----|---------|-------|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
|                                 | Qty               | \$    | Qty     | \$ | Qty     | \$    | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |       |
| RDT&E                           |                   | 0.377 |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.377 |
| PROCUREMENT                     |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Kit Quantity                    |                   |       |         |    | 10300   |       | 50571   |     |         |    |         |    |         |    |         |    |     |    |       |    | 60871 |
| Installation Kits               |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation Kits, Nonrecurring |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Equipment                       |                   |       |         |    |         | 0.555 | 1.381   |     |         |    |         |    |         |    |         |    |     |    |       |    | 1.936 |
| Equipment, Nonrecurring         |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Engineering Support             |                   |       |         |    |         | 0.065 | 0.045   |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.110 |
| Testing                         |                   |       |         |    |         | 0.010 |         |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.010 |
| Integrated Logistical Support   |                   |       |         |    |         | 0.020 | 0.005   |     |         |    |         |    |         |    |         |    |     |    |       |    | 0.025 |
| Fielding                        |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Other                           |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Interim Contractor Support      |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Installation of Hardware        |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1997 Eqpt -- Kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 1998 Eqpt -- Kits            |                   |       |         |    |         |       | 10300   |     |         |    |         |    |         |    |         |    |     |    |       |    | 10300 |
| FY 1999 Eqpt -- Kits            |                   |       |         |    |         |       | 35000   |     | 15571   |    |         |    |         |    |         |    |     |    |       |    | 50571 |
| FY 2000 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2001 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2002 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| FY 2003 Eqpt -- kits            |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| TC Equip-Kits                   |                   |       |         |    |         |       |         |     |         |    |         |    |         |    |         |    |     |    |       |    |       |
| Total Installment               |                   |       |         |    |         |       | 45300   |     | 15571   |    |         |    |         |    |         |    |     |    |       |    | 60871 |
| Total Procurement Cos           |                   |       |         |    |         | 0.7   |         | 1.4 |         |    |         |    |         |    |         |    |     |    |       |    | 2.1   |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY FVS TRAINING DEVICES (G20900)

Program Elements for Code B Items: Code: A Other Related Program Elements: 0203735A D371 COMBAT VEHICLE IMPROVEMENT PROGRAM

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 225.4       | 0.0     | 0.0     | 0.6     | 0.0     | 12.7    | 23.8    | 19.0    | 2.6     | 3.3     | 36.4        | 323.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 225.4       | 0.0     | 0.0     | 0.6     | 0.0     | 12.7    | 23.8    | 19.0    | 2.6     | 3.3     | 36.4        | 323.9      |
| Initial Spares   | 1.8         |         |         |         |         |         |         |         |         |         |             | 1.8        |
| Total Proc Cost  | 227.2       | 0.0     | 0.0     | 0.6     | 0.0     | 12.7    | 23.8    | 19.0    | 2.6     | 3.3     | 36.4        | 325.7      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**Description:**

- Bradley Advanced Training System (BATS) - Integrated BFVS A3 crew precision gunnery training system.
- Maintenance Trainer - Replicates actual Bradley turret allowing maintainers to trouble shoot, fault isolate, and repair.
- Precision Gunnery System (PGS) - Upgrade PGS to integrate BFVS A3. Facilitates unit sustainment training between gunnery cycles.
- Bradley Desktop Trainer (BDT) - desktop computer designed to support individual and networked unit training.

**Justification:**

Introduction of the more technologically advanced Infantry Fighting Vehicle and Cavalry Fighting Vehicles into the Army inventory necessitates a redesign of existing training equipment. The rising cost of fuel, ammunition, repair parts, environment restrictions, vehicles used exclusively for training, and restriction on the availability of suitable training areas will drastically reduce the capability to provide effective, realistic training on the BFVS through the operational use of the vehicle. The goal of training devices is to provide cost effective training to the soldiers without sacrificing realism. This training equipment will be part of an overall training package which will be used to replicate or substitute for actual vehicle use.



| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>BRADLEY FVS TRAINING DEVICES<br>(G20900) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| Production:                                       |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 1. Bradley Advanced Training System               |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
|   |  |  |              |      |   |              |      |                     |              |      |                        | 6500         | 5    | 1300     |
| 2. Maintenance Trainers                           |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
|   |  |  |              |      | 440   | 1            | 440  |                     |              |      |                        | 1545         | 4    | 386      |
| 3. Precision Gunnery System                       |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
|   |  |  |              |      |   |              |      |                     |              |      |                        | 2552         | 25   | 102      |
| 4. Bradley Desktop Trainer (BDT)                  |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
|   |  |  |              |      |   |              |      |                     |              |      |                        | 1152         | 96   | 12       |
| Government Engineering:                           |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
|   |  |  |              |      | 131   |              |      |                     |              |      |                        | 979          |      |          |
| TOTAL   |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
|   |  |  |              |      | 571   |              |      |                     |              |      |                        | 12728        |      |          |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |            |                        |          |                 |  |                  | Date:          |  |
|---|-------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles |                         |                          |                 |            | Weapon System Type:    |          |                 | P-1 Line Item Nomenclature:<br>BRADLEY FVS TRAINING DEVICES (G20900) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| 1. Bradley Advanced Training System<br>FY99   | TBD                     | FFP                      | TBD             | Nov-98     | Aug-99                 | 5        | 1300            | N/A  | N/A              | N/A            |  |
| 2. Maintenance Trainers<br>FY97   | TBD                     | FFP                      | TBD             | Aug-98     | Jan-99                 | 1        | 440             | N/A  | N/A              | N/A            |  |
| FY99  | TBD                     | FFP                      | TBD             | Jan-99     | Jul-99                 | 4        | 386             | N/A  | N/A              | N/A            |  |
| 3. Precision Gunnery System<br>FY99   | SAAB, Sweden            | FFP                      | STRICOM         | Dec-98     | Aug-99                 | 25       | 102             | N/A  | N/A              | N/A            |  |
| 4. Bradley Deskbook Trainer<br>FY99   | UDLP                    | FFP                      | STRICOM         | Nov-98     | Aug-99                 | 96       | 12              | N/A  | N/A              | N/A            |  |
| REMARKS:  |                         |                          |                 |            |                        |          |                 |  |                  |                |  |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: HAB TRAINING DEVICES (G84600)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         | 5       |         |         |         |             | 5          |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.4     | 15.2    | 1.3     | 1.1     | 0.0     | 0.0         | 17.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.4     | 15.2    | 1.3     | 1.1     | 0.0     | 0.0         | 17.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.4     | 15.2    | 1.3     | 1.1     | 0.0     | 0.0         | 17.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Wolverine (Heavy Assault Bridge) simulator is an institutional operator training system (near term implementation) and will evolve into a future unit collective training system (mid to far term) implementation. Five institutional operator simulator systems will be located and housed at Ft. Leonard Wood to accomplish Advanced Individual Training (AIT) for the Military Occupational Specialty (MOS) 12B Combat Engineer on Wolverine driver/operator mission functions. Mission functions will include, driving the vehicle and conducting gap crossing operations (e.g. launch and retrieve the bridge) - day/night and in all weather/environmental conditions. Each simulator system will have the capability to train two Wolverine crews (4 MOS 12Fs) concurrently. The average student throughput is approximately 208.

**JUSTIFICATION:** The simulators will optimize training effectiveness at reduced institutional OPTEMPO costs and will minimize environmental impact to the installation.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |           |      | P-1 Line Item Nomenclature:<br>HAB TRAINING DEVICES (G84600) |           |      | Weapon System Type: |           |      | Date:<br>February 1998 |           |      |          |
|---|--|--|-----------|------|--|-----------|------|---------------------|-----------|------|------------------------|-----------|------|----------|
| WTCV<br>Cost Elements                     |  | ID   | FY 96     |      |  | FY 97     |      |                     | FY 98     |      |                        | FY 99     |      |          |
|   |  | CD   | TotalCost | Qty  | UnitCost   | TotalCost | Qty  | UnitCost            | TotalCost | Qty  | UnitCost               | TotalCost | Qty  | UnitCost |
|   |  |  | \$000     | Each | \$000  | \$000     | Each | \$000               | \$000     | Each | \$000                  | \$000     | Each | \$000    |
| Gov't Program Mgmt                        |  |  |           |      |  |           |      |                     |           |      |                        | 386       |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 723.8       | 10.3    | 5.9     | 4.3     | 6.1     | 5.1     | 4.6     | 4.6     | 4.9     | 4.9     | 0.0         | 774.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 723.8       | 10.3    | 5.9     | 4.3     | 6.1     | 5.1     | 4.6     | 4.6     | 4.9     | 4.9     | 0.0         | 774.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 723.8       | 10.3    | 5.9     | 4.3     | 6.1     | 5.1     | 4.6     | 4.6     | 4.9     | 4.9     | 0.0         | 774.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

Description: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish modernize, expand and replace facilities owned by the Army and provide Production Support and Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment used in production, production testing of Weapons and Tracked Combat Vehicles. Also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and portions of plants which are no longer required for active production.

Justification: The FY99 request includes essential funding for replacement of equipment & instrumentation in production test facilities at Aberdeen, Yuma Proving Grounds, and White Sands Missile Range (WSMR) and layaway of industrial equipment which is excess to production requirements at Rock Island and Watervliet Arsenals.

|        | FY 1996      | FY 1997      | FY 1998      | FY 1999      |
|--------|--------------|--------------|--------------|--------------|
| PIF    | 3.215        | 2.904        | 3.489        | 3.441        |
| LIF    | <u>2.640</u> | <u>1.392</u> | <u>2.578</u> | <u>1.699</u> |
| TOTALS | 5.855        | 4.296        | 6.067        | 5.140        |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>  |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>PRODUCTION BASE SUPPORT (WOCV-<br>WTCV) (GC0050) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>  |  | ID  | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |  | CD  | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |  |   | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 09X5263 MOD, Aberdeen Proving Ground<br>Provides funds to replace, modernize and<br>upgrade equipment and instrumentation<br>used in production testing of Wpns & Trkd<br>Cmbt Vehs. Upgrading will be performed<br>on automotive performance test equipment,<br>vehicle dynamics, high speed imaging,<br>interior exterior ballistics support inst, and<br>toxic fumes instrumentation. |  |   | \$1.360      |      |   | \$1.068      |      |                     | \$1.470      |      |                        | \$1.472      |      |          |
| 09X5268 MOD, Yuma Proving Grounds<br>Provides funds to replace, modernize and<br>upgrade equip/instrumentation used in<br>production testing of WTCV.  |  |   | \$1.214      |      |   | \$0.966      |      |                     | \$1.480      |      |                        | \$1.430      |      |          |
| 09X5269 PSR, White Sands Missile Range<br>Provides funds to replace, modernize and<br>upgrade equip/instrumentation used in<br>production testing at WSMR.   |  |   | \$0.641      |      |   | \$0.870      |      |                     | \$0.539      |      |                        | \$0.539      |      |          |
| 69X7667 LIF, Rock Isl & Watervliet Arsenal<br>Provides funds for Layaway and Redis-<br>tribution of Government-Owned equipment<br>and preservation of equipment to include<br>portions of plants which are no longer<br>required for active production, but must be<br>retained for future use. Also provides for<br>plant clearance/preparation of equipment<br>to be excessed.         |  |   | \$2.640      |      |   | \$1.392      |      |                     | \$2.578      |      |                        | \$1.699      |      |          |
| <b>TOTAL</b>   |  |   | \$5.855      |      |   | \$4.296      |      |                     | \$6.067      |      |                        | \$5.140      |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ITEMS LESS THAN \$2.0M (TCV-WTCV) (GL3100)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 17.5        | 0.0     | 0.0     | 0.0     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.2     | 0.0         | 18.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 17.5        | 0.0     | 0.0     | 0.0     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.2     | 0.0         | 18.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 17.5        | 0.0     | 0.0     | 0.0     | 0.1     | 0.1     | 0.1     | 0.1     | 0.1     | 0.2     | 0.0         | 18.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** Provides for procurement/assembly of full tracked vehicle organizational maintenance tool/shop sets. This equipment has multi-applications and is essential for effective maintenance on all tracked vehicles.

**JUSTIFICATION:** Required to provide organizational maintenance personnel with equipment essential to maintain full tracked vehicles in an acceptable state of readiness. Funding of this program will establish and maintain the operational capability of the Bradley Fighting Vehicle, M1 Tank, etc.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>      |      | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>ITEMS LESS THAN \$2.0M (TCV-WTCV)<br>(GL3100) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|------|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                          |      | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |      | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |      |  | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Shop Set, Contact<br>and Emergency Repair, FM       | G352 | A  | 11           | 1    | 11   | 11           | 1    | 11                  | 44           | 3    | 15                     | 33           | 3    | 11       |
| 2. Tool Set, Full Tracked<br>Vehicle, Org Maint, Sup 2 | G649 | A  |              |      |  |              |      |                     | 92           | 7    | 13                     | 90           | 7    | 13       |
| 3. Shop Equip, Contact<br>Repair Shop, Light Vhl Mtd   | G314 | A  |              |      |  |              |      |                     |              |      |                        | 9            | 1    | 9        |
| <b>TOTAL</b>   |      |  | <b>11</b>    |      |  | <b>11</b>    |      |                     | <b>136</b>   |      |                        | <b>132</b>   |      |          |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: INDUSTRIAL PREPAREDNESS (GC0075)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 37.2        | 6.7     | 5.3     | 5.1     | 5.6     | 4.0     | 4.5     | 4.4     | 5.1     | 4.8     | 0.0         | 82.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 37.2        | 6.7     | 5.3     | 5.1     | 5.6     | 4.0     | 4.5     | 4.4     | 5.1     | 4.8     | 0.0         | 82.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 37.2        | 6.7     | 5.3     | 5.1     | 5.6     | 4.0     | 4.5     | 4.4     | 5.1     | 4.8     | 0.0         | 82.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** This program provides funding to retain, protect, and maintain laidaway reserve industrial plants and equipment. Costs include grounds, utilities, fire and guard protection. Also includes funding for condition assessments of laidaway facilities and costs to rehabilitate equipment to useable condition.

**JUSTIFICATION:** The FY99 request supports the equipment and facilities at Rock Island & Watervliet Arsenals. It includes the overhead cost attributed to the laidaway portions of the Arsenal. Funds also support some of the retention, maintenance and the cost for guard protection at the facilities which are not being utilized.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>  |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>INDUSTRIAL PREPAREDNESS (GC0075) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>  |  | ID  | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|  |  | CD  | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |  |   | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 49X2100 Plant-Equip Storage, SEAD<br>Provided for storage and maintenance of equipment which was retained at Seneca Army Depot (SEAD) to meet future production requirements.  |  |   | \$1.049      |      |   | \$0.108      |      |                     |              |      |                        |              |      |          |
| 49X4290 Ret & Maintenance - Facilities<br>Provides for storage of equipment for future production at Rock Island and Watervliet Arsenals. Also funds for ground maint., fire and guard protection for inactive portions.                           |  |   | \$2.182      |      |   | \$2.182      |      |                     | \$2.761      |      |                        | \$0.502      |      |          |
| 69X7670 Ret & Maintenance - Plants/Equip.<br>Provides for overhead costs attributed to laidaway portions of Watervliet & Rock Island Arsenal. Also funds storage and maintenance costs of equipment which has been laidaway for future production. |  |   | \$2.052      |      |   | \$2.778      |      |                     | \$2.879      |      |                        | \$3.457      |      |          |
| <b>TOTAL</b>   |  |   | \$5.283      |      |   | \$5.068      |      |                     | \$5.640      |      |                        | \$3.959      |      |          |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500)

Program Elements for Code B Items: Code: A Other Related Program Elements: 0203735A D371 COMBAT VEHICLE IMPROVEMENT PROGRAM

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 3.9         | 6.0     | 0.5     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0         | 22.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 3.9         | 6.0     | 0.5     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0         | 22.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 3.9         | 6.0     | 0.5     | 0.8     | 0.0     | 2.1     | 4.4     | 4.8     | 0.0     | 0.0     | 0.0         | 22.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 Software upgrades to BFV Conduct of Fire Trainer (COFT)s, ODS COFTS, Precision Gunnery System, Bradley Advanced Training System, Bradley Desktop Trainer, and Maintenance Training Systems.

**JUSTIFICATION:**  
 Since training devices now function based on software which, as the systems are upgraded/modified, the training device software must be modified to provide adequate training for the soldier. Currently fielded training devices will be upgraded to support the BFVS as system enhancements and software maturation occurs. The average soldier sustainment throughput per year is approximately 3600 for the BFV Commanders and Gunners in the units who will be receiving training on these COFTS.

| Exhibit P-40M Budget Item Justification Sheet                      |                |         |              |         |                                |         |         | Date  |         |     |       |  |
|--|----------------|---------|--------------|---------|--------------------------------|---------|---------|---|---------|-----|-------|--|
| Appropriation / Budget Activity/Serial No.                         |                |         |              |         |                                |         |         | P-1 Item Nomenclature                       |         |     |       |  |
| PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                |         |              |         |                                |         |         | BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500) |         |     |       |  |
| Program Elements for Code B Items                                  |                |         | Code         |         | Other Related Program Elements |         |         |   |         |     |       |  |
| Description  |                |         | Fiscal Years |         |                                |         |         |   |         |     |       |  |
| OSIP NO.   | Classification | FY 1996 | FY 1997      | FY 1998 | FY 1999                        | FY 2000 | FY 2001 | FY 2002                                     | FY 2003 | TC  | Total |  |
| Software Upgrades  |                |         |              |         |                                |         |         |   |         |     |       |  |
| 1-96-05-4513   | Operational    | 0.0     | 0.8          | 0.0     | 2.1                            | 4.4     | 4.8     | 0.0   | 0.0     | 0.0 | 12.1  |  |
| Totals   |                | 0.0     | 0.8          | 0.0     | 2.1                            | 4.4     | 4.8     | 0.0   | 0.0     | 0.0 | 12.1  |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |
|  |                |         |              |         |                                |         |         |   |         |     |       |  |

| INDIVIDUAL MODIFICATION   |         |   |   |   |         |   |   |   |         | Date                               |   | February 1998 |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---------|---|---|---|---------|---|---|---|---------|------------------------------------|---|---------------|---------|---|--------------------------------|---|-------------|--------|---|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|--------|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| MODIFICATION TITLE: <b>Software Upgrades 1-96-05-4513</b>   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MODELS OF SYSTEMS AFFECTED: BFV COFTs, ODS COFTS, Precision Gunnery System, BATS, Bradley Desktop Trainer, Maintenance Training Sytems.   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>Software updates will be required of training devices. As a system is upgraded/modified software on the training device must be modified to ensure adequate training for the soldier.   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |         |   |   |   |         |   |   |   |         | PLANNED                            |   |               |         |   | ACCOMPLISHED                   |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preliminary Design Review<br>Critical Design Review<br>Contractor Test & Evaluation<br>Development Test & Evaluation<br>Initial Operational Test and Evaluation<br>IPR Production Decision<br>TDP Available   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Installation Schedule:  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td>Totals</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | Totals |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  | <b>Inputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pr Yr   | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |                                    |   |               | FY 2000 |   |                                |   | FY 2001     |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                                  | 3 | 4             | 1       | 2 | 3                              | 4 | 1           | 2      | 3 | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Totals  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td> </tr> </tbody> </table>   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  | <b>Outputs</b> |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |                                    |   |               | FY 2005 |   |                                |   | To Complete | Totals |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2                                  | 3 | 4             | 1       | 2 | 3                              | 4 |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Inputs</b>   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Outputs</b>  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|   |         |   |   |   |         |   |   |   |         | ADMINISTRATIVE LEADTIME: 24 Months |   |               |         |   | PRODUCTION LEADTIME: 24 Months |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contract Dates: FY 1997 Apr 98 FY 1998 Apr 99 FY 1999 Apr 01  |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delivery Date: FY 1997 Apr 00 FY 1998 Apr 01 FY 1999 Apr 01   |         |   |   |   |         |   |   |   |         |                                    |   |               |         |   |                                |   |             |        |   |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |        |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Software Upgrades 1-96-05-4513

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |      |
|---------------------------------|-------------------|----|---------|-----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|------|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |      |
| RDT&E                           |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| PROCUREMENT                     |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Kit Quantity                    |                   |    |         | 0.8 |         |    |         | 2.1 |         | 4.4 |         | 4.8 |         |    |         |    |     |    |       |    | 12.1 |
| Installation Kits               |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Installation Kits, Nonrecurring |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Equipment                       |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Equipment, Nonrecurring         |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Engineering Change Orders       |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Data                            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Training Equipment              |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Support Equipment               |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Other                           |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Interim Contractor Support      |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Installation of Hardware        |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| TC Equip-Kits                   |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Total Installment               |                   |    |         |     |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |      |
| Total Procurement Cos           |                   |    |         | 0.8 |         |    |         | 2.1 |         | 4.4 |         | 4.8 |         |    |         |    |     |    |       |    | 12.1 |

**Exhibit P-40, Budget Item Justification Sheet**

Date:

**February 1998**

Appropriation / Budget Activity/Serial No:

**PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles**

P-1 Item Nomenclature:

**FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100)**

Program Elements for Code B Items:

Code:

**A**

Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 805         |         | 48      | 48      | 36      |         |         |         |         |         |             | 937        |
| Gross Cost       | 408.9       | 0.0     | 50.0    | 58.3    | 39.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 556.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 408.9       | 0.0     | 50.0    | 58.3    | 39.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 556.4      |
| Initial Spares   | 1.8         |         |         |         |         |         |         |         |         |         |             | 1.8        |
| Total Proc Cost  | 410.7       | 0.0     | 50.0    | 58.3    | 39.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 558.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 0.5         |         | 1.0     | 1.2     | 1.1     |         |         |         |         |         |             | .6         |

**DESCRIPTION:**

The Field Artillery Ammunition Support Vehicle (FAASV) is a full tracked armored ammunition vehicle with onboard Ammunition Handling Equipment (AHE). The M992 is used to support the M109 Self-Propelled Howitzer (SPH). The FAASV is capable of transporting a minimum 12,000 pounds of 155mm ammunition over improved, unimproved, and/or cross-country roads. Armor shielding provides necessary ballistic protection. An armored rear door hinges upward and outward to provide the overhead ballistic protection between the FAASV and the Howitzer during loading operations. A conveyor is used for passing prepared projectiles and propellant charges from the FAASV into the supported Howitzer. Modifications to the rear door, conveyor, and propellant canister racks is incorporated to make the FAASV compatible with the M109A6 Paladin. The FAASV has the mobility equivalent to its supported Self-Propelled Howitzers. The FAASV is designed to operate in all geographical areas and climatic conditions in which the Howitzer operates. The M992A2 was type classified standard in July 1994.

**JUSTIFICATION:**

The Carrier, Ammunition, Tracked (155mm, M992A2) provides a significant improvement to the Army's offensive ground combat capability. The FAASV provides 100% increase in armor protection for the crew and ammunition, an 80% increase in Ammunition Handling Equipment (AHE) capability and a 50% increase in vehicle mobility over the current M548, which is being replaced on a one-for-one basis. Thus, high artillery firing rates can be maintained while minimizing casualties. The FAASV has a ventilated face piece Nuclear, Biological, Chemical(NBC) system, a Simplified Test Equipment - Internal Combustion Engine (STE-ICE), and an Automatic Fire Extinguisher System. The FAASV is a companion vehicle to, and is required to support the M109A6 Self-Propelled Howitzer (SPH). It also preserves a warm mobilization base for the SPH with the only tooled and experienced producer.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |             |                   | P-1 Line Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT<br>VEH (G80100) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|--|-------------|-------------------|---|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| WTCV<br>Cost Elements                     | ID<br>CD | FY 96  |             |                   | FY 97   |             |                   | FY 98               |             |                   | FY 99                  |             |                   |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| 1. Basic Vehicle                          | A        | 38361  | 48          | 799               | 31224   | 48          | 651               | 26925               | 36          | 748               |                        |             |                   |
| 2. Engine                                 |          | 1334   | 48          | 28                | 1386  | 48          | 29                | 1040                | 36          | 29                |                        |             |                   |
| 3. Roadwheels                             |          | 144  | 48          | 3                 | 144   | 48          | 3                 | 115                 | 36          | 3                 |                        |             |                   |
| 4. Track                                  |          | 895  | 48          | 19                | 779   | 48          | 16                | 516                 | 36          | 14                |                        |             |                   |
| 5. BII/COEI                               |          | 560  |             |                   | 1389  |             |                   | 593                 |             |                   |                        |             |                   |
| 6. Government Furnished Materiel          |          | 2519   |             |                   | 4259  |             |                   | 1035                |             |                   |                        |             |                   |
| 7. Engineering Change Orders              |          | 95   |             |                   | 95  |             |                   | 71                  |             |                   |                        |             |                   |
| 8. Engineering - Government               |          | 1506   |             |                   | 7155  |             |                   | 3240                |             |                   |                        |             |                   |
| 9. Engineering - Contractor               |          | 2448   |             |                   | 8589  |             |                   | 3234                |             |                   |                        |             |                   |
| 10. Project Management Administration     |          | 600  |             |                   | 1901  |             |                   | 1220                |             |                   |                        |             |                   |
| 11. Systems Testing                       |          | 252  |             |                   | 332   |             |                   | 350                 |             |                   |                        |             |                   |
| 12. Fielding                              |          | 1274   |             |                   | 1061  |             |                   | 840                 |             |                   |                        |             |                   |
| <b>TOTAL</b>                              |          | <b>49988</b>   |             |                   | <b>58314</b>  |             |                   | <b>39179</b>        |             |                   |                        |             |                   |



| Exhibit P-5a, Budget Procurement History and Planning   |   |                          |                 |            |                        |          |                 |  |                  | Date:          |  |
|---|---|--------------------------|-----------------|------------|------------------------|----------|-----------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles |   |                          |                 |            | Weapon System Type:    |          |                 | P-1 Line Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                         | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| 1. Basic Vehicle  |   |                          |                 |            |                        |          |                 |  |                  |                |  |
| FY 96   | United Defense (UDLP-GSD)<br>York, PA           | SS/FFP                   | TACOM           | Jul-96     | May-98                 | 48       | 799             |  |                  |                |  |
| FY 97   | United Defense (UDLP-GSD)<br>York, PA           | Option                   | TACOM           | Jan-97     | Nov-98                 | 48       | 651             |  |                  |                |  |
| FY 98   | United Defense (UDLP-GSD)<br>York, PA           | SS/FFP                   | TACOM           | Apr-98     | May-99                 | 36       | 748             |  |                  | Jan-98         |  |
| 2. Engine   |   |                          |                 |            |                        |          |                 |  |                  |                |  |
| FY 96   | Detroit Diesel Detroit, MI                      | SS/FFP                   | TACOM           | Jul-96     | Dec-97                 | 48       | 28              |  |                  |                |  |
| FY 97   | Detroit Diesel Detroit, MI                      | SS/FFP                   | TACOM           | Jan-97     | Aug-98                 | 48       | 29              |  |                  |                |  |
| FY 98   | Detroit Diesel Detroit, MI                      | SS/FFP                   | TACOM           | Jan-98     | Dec-98                 | 36       | 29              |  |                  |                |  |
| 3. Roadwheels   |   |                          |                 |            |                        |          |                 |  |                  |                |  |
| FY96  | North American Molded<br>Products Hartville, OH | C/FFP                    | TACOM           | May-96     | Oct-97                 | 48       | 3               |  |                  |                |  |
| FY 97   | North American Molded<br>Products Hartville, OH | C/FFP                    | TACOM           | Jan-97     | May-98                 | 48       | 3               |  |                  |                |  |
| FY 98   | North American Molded<br>Products Hartville, OH | C/FFP                    | TACOM           | Feb-98     | Mar-99                 | 36       | 3               |  |                  |                |  |
| 4. Track  |   |                          |                 |            |                        |          |                 |  |                  |                |  |
| FY 96   | Varec, Belguim                                  | C/FFP                    | TACOM           | Jul-96     | Oct-97                 | 48       | 19              |  |                  |                |  |
| FY 97   | Detroit Diesel                                  | C/FFP                    | TACOM           | Sep-97     | May-98                 | 48       | 16              |  |                  |                |  |
| FY 98   | Detroit Diesel                                  | C/FFP                    | TACOM           | Feb-98     | Aug-98                 | 36       | 14              |  |                  |                |  |
| REMARKS:  |   |                          |                 |            |                        |          |                 |  |                  |                |  |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                  |              |      |                  |                          | P-1 Item Nomenclature:<br>FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) |                  |              |              |              |     |       |         |     |     |     | Date:<br>February 1998 |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|---------------------------------------|------------------|--------------|------|------------------|--------------------------|---|------------------|--------------|--------------|--------------|-----|-------|---------|-----|-----|-----|------------------------|-----|-----|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|-----------|--|--|--|----|--|--|--|--|
| COST ELEMENTS                         | MFR              | FY           | SERV | PROC QTY<br>Each | ACCEP. PRIOR<br>TO 1 OCT | BAL DUE<br>AS OF 1 OCT  | Fiscal Year 96   |              |              |              |     |       |         |     |     |     |                        |     |     | Fiscal Year 97   |     |     |     |     |     |     |     |     |     |     |  |  | L A T E R |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          |   | Calendar Year 96 |              |              |              |     |       |         |     |     |     |                        |     |     | Calendar Year 97 |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          |   | OCT              | NOV          | DEC          | JAN          | FEB | MAR   | APR     | MAY | JUN | JUL | AUG                    | SEP | OCT | NOV              | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |  |           |  |  |  |    |  |  |  |  |
| 1. Basic Vehicle                      | 1                | FY95 & Prior | A    | 805              | 805                      |   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       | 1                | FY 96        | A    | 48               | 0                        | 48  |                  |              |              |              |     |       |         | A   |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  | 48 |  |  |  |  |
|                                       | 1                | FY 97        | A    | 48               | 0                        | 48  |                  |              |              |              |     |       |         |     |     |     |                        |     |     | A                |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  | 48 |  |  |  |  |
|                                       | 1                | FY 98        | A    | 36               | 0                        | 36  |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  | 36 |  |  |  |  |
|                                       |                  |              |      |                  |                          |   | OCT              | NOV          | DEC          | JAN          | FEB | MAR   | APR     | MAY | JUN | JUL | AUG                    | SEP | OCT | NOV              | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |  |           |  |  |  |    |  |  |  |  |
| MFR                                   | PRODUCTION RATES |              |      |                  | REACHED                  | MFR   | ADMIN LEAD TIME  |              |              |              | MFR | TOTAL | REMARKS |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
| NAME / LOCATION                       | MIN.             | 1-8-5        | MAX. | D +              | Number                   | Prior 1 Oct.  | After 1 Oct.     | After 1 Oct. | After 1 Oct. | After 1 Oct. |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
| 1 United Defense (UDLP-GSD)           | 6                | 9            | 15   |                  |                          | INITIAL   | 6                | 10           | 22           | 32           |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | REORDER   | 3                | 4            | 22           | 26           |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | INITIAL   | 3                | 7            | 14           | 21           |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | REORDER   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | INITIAL   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | REORDER   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | INITIAL   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | REORDER   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | INITIAL   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |
|                                       |                  |              |      |                  |                          | REORDER   |                  |              |              |              |     |       |         |     |     |     |                        |     |     |                  |     |     |     |     |     |     |     |     |     |     |  |  |           |  |  |  |    |  |  |  |  |





**Exhibit P-40, Budget Item Justification Sheet**

Date:

**February 1998**

Appropriation / Budget Activity/Serial No:

**PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles**

P-1 Item Nomenclature:

**FAASV PIP TO FLEET (GA8010)**

Program Elements for Code B Items:

Code:

**A**

Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 56.7        | 9.9     | 6.4     | 23.5    | 1.9     | 3.2     | 0.1     | 0.0     | 18.7    | 0.0     | 4.6         | 124.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 56.7        | 9.9     | 6.4     | 23.5    | 1.9     | 3.2     | 0.1     | 0.0     | 18.7    | 0.0     | 4.6         | 124.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 56.7        | 9.9     | 6.4     | 23.5    | 1.9     | 3.2     | 0.1     | 0.0     | 18.7    | 0.0     | 4.6         | 124.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Funds the procurement of approved modifications to the M992 and M992A1 Field Artillery Ammunition Support Vehicle (See detailed Description/Justification on the following exhibit P-3A).

| Exhibit P-40M Budget Item Justification Sheet                      |                |                |              |                                |         |         |         |         | Date                        |     |       |
|--|----------------|----------------|--------------|--------------------------------|---------|---------|---------|---------|-----------------------------|-----|-------|
| Appropriation / Budget Activity/Serial No. (No P3a Set)            |                |                |              |                                |         |         |         |         | P-1 Item Nomenclature       |     |       |
| PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                |                |              |                                |         |         |         |         | FAASV PIP TO FLEET (GA8010) |     |       |
| Program Elements for Code B Items                                  |                |                | Code         | Other Related Program Elements |         |         |         |         |                             |     |       |
|  |                |                | A            |                                |         |         |         |         |                             |     |       |
| Description  |                |                | Fiscal Years |                                |         |         |         |         |                             |     |       |
| OSIP NO.   | Classification | FY1996 & Prior | FY 1997      | FY 1998                        | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                     | TC  | Total |
| FAASV Materiel Change (A2 Conversion)                              |                |                |              |                                |         |         |         |         |                             |     |       |
| 1-93-05-4457   | Unclassified   | 72.5           | 22.5         | 0.1                            | 2.9     | 0.1     | 0.0     | 18.7    | 0.0                         | 0.0 | 116.8 |
| FAASV Halon Replacement  |                |                |              |                                |         |         |         |         |                             |     |       |
| 1-94-05-4477   | Unclassified   | 0.4            | 1.0          | 1.8                            | 0.3     | 0.0     | 0.0     | 0.0     | 0.0                         | 4.6 | 8.1   |
| Totals   |                | 72.9           | 23.5         | 1.9                            | 3.2     | 0.1     | 0.0     | 18.7    | 0.0                         | 4.6 | 124.9 |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |
|  |                |                |              |                                |         |         |         |         |                             |     |       |

| INDIVIDUAL MODIFICATION   |        |         |    |    |    |         |    |    |     | Date    |    | February 1998 |   |         |   |   |   |          |        |   |   |
|---|--------|---------|----|----|----|---------|----|----|-----|---------|----|---------------|---|---------|---|---|---|----------|--------|---|---|
| <b>MODIFICATION TITLE: FAASV Materiel Change (A2 Conversion) 1-93-05-4457</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>MODELS OF SYSTEMS AFFECTED: FAASV M992A2</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>DESCRIPTION / JUSTIFICATION:</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <p>The FAASV materiel change encompasses the previously approved FAASV HELP (Howitzer Extended Life Program) and Survivability Materiel Changes. The materiel change incorporates M109 Family of Vehicles improvements into the FAASV in order to maintain a common chassis. These improvements include the Low Heat Rejection/Cold Start Engine, improved XTG 411-4 Transmission, Reliability, and Maintainability (RAM) improvements to the cooling, electrical, and suspension systems, relocated heater and hydraulic reservoir, stronger fuel cell, and modifications to provide interoperability with the M109A6 Paladin Howitzer. The enhancements provided by the materiel change will permit the FAASV crew to operate in the same environment as the M109A6 Paladin. This means the operation and maintenance features will be common (i.e. spares, repair parts, special tools, and training) and the FAASV cold starting and RAM features will be comparable. The modifications to the rear door conveyor and propellant racks will improve M109A6 supportability. Funding against Depot Maintenance Pre-Modification pays the Inspect and Repair Only As Necessary (IROAN) upgrade effort. FY99 represents the first year these funds were transferred from the Operation and Maintenance, Army(OMA) to the procurement appropriation as directed by Program Budget Decision (PBD) 21.</p> |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| Preliminary Design Review: 1QFY91<br>Critical Design Review: 4QFY91<br>Contractor Test and Evaluation: 2QFY93<br>IPR Production Design: 3QFY93<br>TDP Available: 3QFY93<br>M992A2 First Delivery: 3QFY94<br>M992A2 First Unit Equipped: 1QFY95  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>Installation Schedule:</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
|   | Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |    |     | FY 1999 |    |               |   | FY 2000 |   |   |   | FY 2001  |        |   |   |
|   | Totals | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4   | 1       | 2  | 3             | 4 | 1       | 2 | 3 | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>   | 356    | 33      | 31 | 90 | 21 | 42      | 39 | 63 | 106 | 8       |    |               |   |         |   |   |   |          |        |   |   |
| <b>Outputs</b>  | 321    | 33      | 32 | 29 | 25 | 51      | 49 | 76 | 110 | 35      | 26 | 2             |   |         |   |   |   |          |        |   |   |
|   |        | FY 2002 |    |    |    | FY 2003 |    |    |     | FY 2004 |    |               |   | FY 2005 |   |   |   | To       | Totals |   |   |
|   |        | 1       | 2  | 3  | 4  | 1       | 2  | 3  | 4   | 1       | 2  | 3             | 4 | 1       | 2 | 3 | 4 | Complete |        |   |   |
| <b>Inputs</b>   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          | 789    |   |   |
| <b>Outputs</b>  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          | 789    |   |   |
| <b>METHOD OF IMPLEMENTATION:</b> Field Retrofit <b>ADMINISTRATIVE LEADTIME:</b> 12 Months <b>PRODUCTION LEADTIME:</b> 7 Months  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>Contract Dates:</b> FY 1997    October 1997      FY 1998    N/A      FY 1999    N/A  |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |
| <b>Delivery Date:</b> FY 1997    April 1998      FY 1998    N/A      FY 1999    N/A   |        |         |    |    |    |         |    |    |     |         |    |               |   |         |   |   |   |          |        |   |   |

| INDIVIDUAL MODIFICATION          |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         | Date   |     | February 1998 |       |     |       |
|----------------------------------|----------------------|------|---------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|-----|---------|--|-----|---------------|-------|-----|-------|
| MODIFICATION TITLE (Cont):       |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         | FAASV Materiel Change (A2 Conversion) 1-93-05-4457 |     |               |       |     |       |
| FINANCIAL PLAN: (\$ in Millions) |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
|                                  | FY 1996<br>and Prior |      | FY 1997 |      | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |     | FY 2003 |  | TC  |               | TOTAL |     |       |
|                                  | Qty                  | \$   | Qty     | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$  | Qty     | \$   | Qty | \$            | Qty   | \$  |       |
| RDT&E                            |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| PROCUREMENT                      |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| Kit Quantity                     | 664                  |      | 125     |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       | 789 |       |
| Installation Kits                |                      | 42.4 |         | 2.3  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     | 44.7  |
| Engineering Change Orders        |                      | 10.2 |         | 0.1  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     | 10.3  |
| Project Management Admin         |                      | 1.0  |         | 0.2  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     | 1.2   |
| Testing                          |                      | 0.1  |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     | 0.1   |
| Vehicular Intercom System        |                      |      |         | 9.1  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     | 9.1   |
| Fielding                         |                      | 3.4  |         | 0.9  |         | 0.1 |         | 0.2 |         | 0.1 |         |    |         |     |         |  |     |               |       |     | 4.7   |
| Depot Maint PreModification      |                      |      |         |      |         |     |         | 2.7 |         |     |         |    |         | 0.6 |         |  |     |               |       |     | 3.3   |
| Auxiliary Power Unit             |                      |      |         |      |         |     |         |     |         |     |         |    | 18.1    |     |         |  |     |               |       |     | 18.1  |
| Installation of Hardware         |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| FY 1996 & Prior Eqpt( 664) Kits  | 462                  | 15.4 | 202     | 8.4  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       | 664 | 23.8  |
| FY 1997 Eqpt (125) Kits          |                      |      | 125     | 1.5  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       | 125 | 1.5   |
| FY 1998 Eqpt -- Kits             |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| FY 1999 Eqpt -- Kits             |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| FY 2000 Eqpt -- kits             |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| FY 2001 Eqpt -- kits             |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| FY 2002 Eqpt -- kits             |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| FY 2003 Eqpt -- kits             |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| TC Equip-Kits                    |                      |      |         |      |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       |     |       |
| Total Installment                | 462                  | 15.4 | 327     | 9.9  |         |     |         |     |         |     |         |    |         |     |         |  |     |               |       | 789 | 25.3  |
| Total Procurement Cos            |                      | 72.5 |         | 22.5 |         | 0.1 |         | 2.9 |         | 0.1 |         |    | 18.7    |     |         |  |     |               |       |     | 116.8 |



| INDIVIDUAL MODIFICATION   |  |                 |   |   |   |                          |   |   |   | Date            |     | February 1998 |     |                      |                |     |     |          |   |        |     |
|---|--|-----------------|---|---|---|--------------------------|---|---|---|-----------------|-----|---------------|-----|----------------------|----------------|-----|-----|----------|---|--------|-----|
| MODIFICATION TITLE: <b>FAASV Halon Replacement 1-94-05-4477</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        |     |
| MODELS OF SYSTEMS AFFECTED: <b>FAASV M992A2</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        |     |
| DESCRIPTION / JUSTIFICATION:<br><br>References: DOD Directive 6050.0; DA Policy Letter 200.0.1; AMC Regulation 70-68; Montreal Protocol of 1986 and Presidential Directi<br>These references mandate the replacement of Halon charged fire suppression systems to prevent ozone depletion. A common<br>replacement agent engine compartment fire extinguishing system is required for 885 FAASV systems. FY97-99 funds have been<br>appropriated to begin step one of the conversion by replacing the fire suppression distribution system in the FAASV engine compartment on<br>688 vehicles with one suitable to both Halon and the selected alternate agent. |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        |     |
|   |  |                 |   |   |   |                          |   |   |   | <b>PLANNED:</b> |     |               |     |                      | <b>ACTUAL:</b> |     |     |          |   |        |     |
| Preliminary Design Review:  |  |                 |   |   |   |                          |   |   |   | 2QFY98          |     |               |     |                      | 1QFY98         |     |     |          |   |        |     |
| Critical Design Review:   |  |                 |   |   |   |                          |   |   |   | 2QFY98          |     |               |     |                      |                |     |     |          |   |        |     |
| Joint Government Contractor Test and Evaluation:  |  |                 |   |   |   |                          |   |   |   | 2QFY98          |     |               |     |                      | 1QFY98         |     |     |          |   |        |     |
| IPR Production Decision:  |  |                 |   |   |   |                          |   |   |   | 3QFY98          |     |               |     |                      |                |     |     |          |   |        |     |
| TDP Available:  |  |                 |   |   |   |                          |   |   |   | 3QFY98          |     |               |     |                      |                |     |     |          |   |        |     |
| Installation Schedule:  |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        |     |
| Pr Yr   |  | FY 1997         |   |   |   | FY 1998                  |   |   |   | FY 1999         |     |               |     | FY 2000              |                |     |     | FY 2001  |   |        |     |
| Totals  |  | 1               | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1               | 2   | 3             | 4   | 1                    | 2              | 3   | 4   | 1        | 2 | 3      | 4   |
| <b>Inputs</b>   |  |                 |   |   |   |                          |   |   |   | 100             | 100 | 244           | 244 | 197                  |                |     |     |          |   |        |     |
| <b>Outputs</b>  |  |                 |   |   |   |                          |   |   |   | 57              | 50  | 26            | 20  | 50                   | 162            | 162 | 161 |          |   |        |     |
|   |  | FY 2002         |   |   |   | FY 2003                  |   |   |   | FY 2004         |     |               |     | FY 2005              |                |     |     | To       |   | Totals |     |
|   |  | 1               | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1               | 2   | 3             | 4   | 1                    | 2              | 3   | 4   | Complete |   |        |     |
| <b>Inputs</b>   |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        | 885 |
| <b>Outputs</b>  |  |                 |   |   |   |                          |   |   |   |                 |     |               |     |                      |                |     |     |          |   |        | 688 |
| METHOD OF IMPLEMENTATION:   |  | Unknown         |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 9 Months        |     |               |     | PRODUCTION LEADTIME: |                |     |     | 6 Months |   |        |     |
| Contract Dates:   |  | FY 1997 July 98 |   |   |   | FY 1998 July 98          |   |   |   | FY 1999 N/A     |     |               |     |                      |                |     |     |          |   |        |     |
| Delivery Date:  |  | FY 1997 Dec 88  |   |   |   | FY 1998 Dec 88           |   |   |   | FY 1999 N/A     |     |               |     |                      |                |     |     |          |   |        |     |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): FAASV Halon Replacement 1-94-05-4477

FINANCIAL PLAN: (\$ in Millions)

|                              | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |     | TOTAL |     |     |
|------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|------|-----|-------|-----|-----|
|                              | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$  | Qty   | \$  |     |
| RDT&E                        |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| PROCUREMENT                  |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Quantity Kit A               |                   |     | 200     |     | 488     |     | 197     |     |         |    |         |    |         |    |         |    |      |     | 885   |     |     |
| Hardware for Kit A           |                   |     |         | 0.3 |         | 0.7 |         | 0.3 |         |    |         |    |         |    |         |    |      |     |       |     | 1.3 |
| Engineering Support          |                   |     |         | 0.3 |         | 0.4 |         |     |         |    |         |    |         |    |         |    |      |     |       |     | 0.7 |
| Data                         |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Test                         |                   | 0.4 |         | 0.4 |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     | 0.8 |
| Other                        |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Quantity Kit B               |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| Hardware for Kit B           |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    | 885  | 3.4 | 885   |     | 3.4 |
| Installation of Hardware     |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 1996 & Prior Eqpt -- Kits |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 1997 Eqpt (200) Kits      |                   |     |         |     | 200     | 0.2 |         |     |         |    |         |    |         |    |         |    |      |     |       | 200 | 0.2 |
| FY 1998 Eqpt (488) Kits      |                   |     |         |     | 488     | 0.5 |         |     |         |    |         |    |         |    |         |    |      |     |       | 488 | 0.5 |
| FY 1999 Eqpt -- Kits         |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2000 Eqpt -- kits         |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2001 Eqpt -- kits         |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2002 Eqpt -- kits         |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| FY 2003 Eqpt -- kits         |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    |      |     |       |     |     |
| TC Equip-Kits                |                   |     |         |     |         |     |         |     |         |    |         |    |         |    |         |    | 1082 | 1.2 | 1082  |     | 1.2 |
| Total Installment            |                   |     |         |     | 688     | 0.7 |         |     |         |    |         |    |         |    |         |    | 1082 | 1.2 | 1770  |     | 1.9 |
| Total Procurement Cos        |                   | 0.4 |         | 1.0 |         | 1.8 |         | 0.3 |         |    |         |    |         |    |         |    |      | 4.6 |       |     | 8.1 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M119 MODIFICATIONS (GC0401)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 0.0         | 15.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 0.0         | 15.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 0.0         | 15.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Light Artillery System Improvement Plan (LASIP) for the 105mm, M119A1 Light, Towed Howitzer

JUSTIFICATION: The 105mm M119A1 Light, Towed Howitzer was selected as the weapon of choice for the light forces because it was a nondevelopmental item (NDI) with growth potential. Now that 418 M119A1 howitzers have been fielded, it is time to realize that growth potential. The Light Artillery System Improvement Plan (LASIP) initiates this process by correcting known deficiencies, improving reliability, availability and maintainability (RAM), and providing solutions to requests for minor operational enhancements. The LASIP was developed by the M119A1 Howitzer Improvement Team (HIT), chartered specifically to respond to improvements requested by field artillery units, the U.S. Army Field Artillery School (USAFAS) and the U.S. Army Training and Doctrine Command (TRADOC).

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |  |
|--|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles | P-1 Item Nomenclature<br>M119 MODIFICATIONS (GC0401) |
|--|--|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

|             |              |
|-------------|--------------|
| Description | Fiscal Years |
|-------------|--------------|

| OSIP NO.               | Classification | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC   | Total |
|------------------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|------|-------|
| <b>Block 1 Upgrade</b> |                |         |         |         |         |         |         |         |         |      |       |
| TBD1                   | Operational    | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 0.3     | 0.0     | 0.0     | 0.0  | 12.8  |
| <b>Block 2 Upgrade</b> |                |         |         |         |         |         |         |         |         |      |       |
| TBD2                   | Operational    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.9     | 0.0     | 0.0     | 13.9 | 16.8  |
| <b>Totals</b>          |                | 0.0     | 0.0     | 4.9     | 4.8     | 2.9     | 3.2     | 0.0     | 0.0     | 13.9 | 29.6  |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |
|                        |                |         |         |         |         |         |         |         |         |      |       |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |         |                          |   |   |    | Date         |    | February 1998 |    |                      |                           |    |    |          |    |        |     |  |  |  |
|---|--|------------------|---|---|---------|--------------------------|---|---|----|--------------|----|---------------|----|----------------------|---------------------------|----|----|----------|----|--------|-----|--|--|--|
| MODIFICATION TITLE: Block 1 Upgrade TBD1  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| MODELS OF SYSTEMS AFFECTED: Howitzer, Light Towed, 105mm M119A1   |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br>Retrofit Low Temp Recuperator 1-90-05-7875; The seals function only to temperature of -25F not the -50F. Improve Indirect Fire control; Upgrade M187 1-94-05-7911; The M119A1 indirect fire control system fails approximately 14 times more often than other hardware fire control systems when Operational Mode Profile (OMP) is factored in. Upgrade Cam Follower Arm; Preventing damage to the cam follower will improve reliability, availability and maintainability while reducing Operating and Support costs (OSCR). Improve Firing Stays; The design and mounting clearances for the clevis pins on the rear firing stays of the firing platform make it very difficult to attach the stays to the trail during emplacement. Improve Traveling Stays; The design and mounting clearances for the clevis pins on the traveling stays make it very difficult to attach the stays to the trail when preparing for towing Redesign Rammer/Extractor Tool; Modify Brake System; The system required a special production run by the British manufacturer, the brake also used asbestos brake linings. Add Trail Lifting Handles; Due to limited clearance, the user has requested trail lifting handles be designe |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
|   |  |                  |   |   | Planned |                          |   |   |    | Accomplished |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| Validate Materiel change (MC)   |  |                  |   |   |         |                          |   |   |    | 3Q90         |    |               |    |                      | Deliver First Mod Kit     |    |    |          |    | 4Q98   |     |  |  |  |
| Critical Design Review  |  |                  |   |   |         |                          |   |   |    | 3Q91         |    |               |    |                      | First Unit Equipped (FUE) |    |    |          |    | 1Q99   |     |  |  |  |
| Complete Testing of Prototype   |  |                  |   |   |         |                          |   |   |    | 3Q92         |    |               |    |                      | Deliver Last Mod Kit      |    |    |          |    | 3Q01   |     |  |  |  |
| Release Technical Data Package (TDP)  |  |                  |   |   |         |                          |   |   |    | 1Q93         |    |               |    |                      | Last Unit Equipped        |    |    |          |    | 4Q01   |     |  |  |  |
| Award Contract for Modification Kits  |  |                  |   |   | 2Q98    |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| Installation Schedule:  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        |     |  |  |  |
| Pr Yr   |  | FY 1997          |   |   |         | FY 1998                  |   |   |    | FY 1999      |    |               |    | FY 2000              |                           |    |    | FY 2001  |    |        |     |  |  |  |
| Totals  |  | 1                | 2 | 3 | 4       | 1                        | 2 | 3 | 4  | 1            | 2  | 3             | 4  | 1                    | 2                         | 3  | 4  | 1        | 2  | 3      | 4   |  |  |  |
| <b>Inputs</b>   |  |                  |   |   |         |                          |   |   | 30 | 30           | 35 | 35            | 35 | 35                   | 35                        | 35 | 35 | 40       | 40 | 40     | 40  |  |  |  |
| <b>Outputs</b>  |  |                  |   |   |         |                          |   |   |    | 30           | 30 | 35            | 35 | 35                   | 35                        | 35 | 35 | 35       | 40 | 40     | 40  |  |  |  |
|   |  | FY 2002          |   |   |         | FY 2003                  |   |   |    | FY 2004      |    |               |    | FY 2005              |                           |    |    | To       |    | Totals |     |  |  |  |
|   |  | 1                | 2 | 3 | 4       | 1                        | 2 | 3 | 4  | 1            | 2  | 3             | 4  | 1                    | 2                         | 3  | 4  | Complete |    |        |     |  |  |  |
| <b>Inputs</b>   |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        | 425 |  |  |  |
| <b>Outputs</b>  |  |                  |   |   |         |                          |   |   |    |              |    |               |    |                      |                           |    |    |          |    |        | 425 |  |  |  |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |         | ADMINISTRATIVE LEADTIME: |   |   |    | 4 Months     |    |               |    | PRODUCTION LEADTIME: |                           |    |    | 6 Months |    |        |     |  |  |  |
| Contract Dates:   |  | FY 1997          |   |   |         | FY 1998                  |   |   |    | Multiple     |    |               |    | FY 1999              |                           |    |    | Multiple |    |        |     |  |  |  |
| Delivery Date:  |  | FY 1997          |   |   |         | FY 1998                  |   |   |    | Multiple     |    |               |    | FY 1999              |                           |    |    | Multiple |    |        |     |  |  |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Block 1 Upgrade TBD1

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |       | FY 1999 |       | FY 2000 |       | FY 2001 |       | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |        |       |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|-----|----|-------|--------|-------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$     |       |
| RDT&E                           |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| PROCUREMENT                     |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Kit Quantity                    |                   |    |         |    | 110     |       | 125     |       | 190     |       |         |       |         |    |         |    |     |    |       | 425    |       |
| Installation Kits               |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Installation Kits, Nonrecurring |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Equipment                       |                   |    |         |    |         | 4.219 |         | 4.107 |         | 2.156 |         |       |         |    |         |    |     |    |       | 10.482 |       |
| Equipment, Nonrecurring         |                   |    |         |    |         | 0.026 |         |       |         |       |         |       |         |    |         |    |     |    |       | 0.026  |       |
| Engineering Change Orders       |                   |    |         |    |         | 0.032 |         | 0.025 |         | 0.025 |         |       |         |    |         |    |     |    |       | 0.082  |       |
| Engineering Support             |                   |    |         |    |         | 0.218 |         | 0.225 |         | 0.235 |         |       |         |    |         |    |     |    |       | 0.678  |       |
| Training Equipment              |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Support Equipment               |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Other                           |                   |    |         |    |         | 0.304 |         |       |         |       |         |       |         |    |         |    |     |    |       | 0.304  |       |
| Fielding                        |                   |    |         |    |         | 0.076 |         | 0.111 |         | 0.118 |         |       |         |    |         |    |     |    |       | 0.305  |       |
| Installation of Hardware        |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |       | 110     | 0.295 |         |       |         |       |         |    |         |    |     |    |       | 110    | 0.295 |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |       | 20      | 0.049 | 105     | 0.260 |         |       |         |    |         |    |     |    |       | 125    | 0.309 |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |       |         |       | 35      | 0.067 | 155     | 0.297 |         |    |         |    |     |    |       | 190    | 0.364 |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| TC Equip-Kits                   |                   |    |         |    |         |       |         |       |         |       |         |       |         |    |         |    |     |    |       |        |       |
| Total Installment               |                   |    |         |    |         |       | 130     | 0.344 | 140     | 0.327 | 155     | 0.297 |         |    |         |    |     |    |       | 425    | 0.968 |
| Total Procurement Cos           |                   |    |         |    |         | 4.9   |         | 4.8   |         | 2.9   |         | 0.3   |         |    |         |    |     |    |       |        | 12.8  |

| INDIVIDUAL MODIFICATION  |  |                  |   |     |         |                          |     |   |   | Date         |   | February 1998 |   |                      |                           |   |   |          |   |        |     |  |  |  |
|--|--|------------------|---|-----|---------|--------------------------|-----|---|---|--------------|---|---------------|---|----------------------|---------------------------|---|---|----------|---|--------|-----|--|--|--|
| MODIFICATION TITLE: <b>Block 2 Upgrade TBD2</b>  |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| MODELS OF SYSTEMS AFFECTED:  |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The rammer/extractor tool currently issued was "borrowed" from the M102 Howitzer which requires the base of the primed cartridge be forcefully struck by a hard rubble plunger. Upgrade elevating handwheel; it is the limiting factor in the system departure angle during cross country movement and is highly susceptible to damage during tactical operations. These items are included in the "To Complete"(TC): Improve the Direct Fire Scope; Improving the direct fire scope will provide night capability, improved accuracy and internal boresighting. Modify the Firing Platform clamps; The firing platform must be disengaged from its stowage brackets, lifted manually from the trail, carried completely clear of the trail and placed on the ground before the howitzer can be rolled into its firing position. Modify the Elevation Clutches; This will reduce corrosion damage and lower maintenance costs. Replace competitive tubes in the buffer assembly with a more reliable system. This eliminates the collapse of the current tube design.</p> |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
|  |  |                  |   |     | Planned |                          |     |   |   | Accomplished |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Validate Materiel change (MC)  |  |                  |   |     |         |                          |     |   |   | 3Q94         |   |               |   |                      | Deliver First Mod Kit     |   |   |          |   | 3Q02   |     |  |  |  |
| Critical Design Review   |  |                  |   |     | 1Q01    |                          |     |   |   |              |   |               |   |                      | First Unit Equipped (FUE) |   |   |          |   | 4Q02   |     |  |  |  |
| Complete Testing of Prototype  |  |                  |   |     | 2Q01    |                          |     |   |   |              |   |               |   |                      | Deliver Last Mod Kit      |   |   |          |   | 2Q03   |     |  |  |  |
| Release Technical Data Package (TDP)   |  |                  |   |     | 4Q01    |                          |     |   |   |              |   |               |   |                      | Last Unit Equipped        |   |   |          |   | 3Q03   |     |  |  |  |
| Award Contract for Modification Kits   |  |                  |   |     | 1Q02    |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Installation Schedule:   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Pr Yr  |  | FY 1997          |   |     |         | FY 1998                  |     |   |   | FY 1999      |   |               |   | FY 2000              |                           |   |   | FY 2001  |   |        |     |  |  |  |
| Totals   |  | 1                | 2 | 3   | 4       | 1                        | 2   | 3 | 4 | 1            | 2 | 3             | 4 | 1                    | 2                         | 3 | 4 | 1        | 2 | 3      | 4   |  |  |  |
| <b>Inputs</b>  |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| <b>Outputs</b>   |  |                  |   |     |         |                          |     |   |   |              |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
|  |  | FY 2002          |   |     |         | FY 2003                  |     |   |   | FY 2004      |   |               |   | FY 2005              |                           |   |   | To       |   | Totals |     |  |  |  |
|  |  | 1                | 2 | 3   | 4       | 1                        | 2   | 3 | 4 | 1            | 2 | 3             | 4 | 1                    | 2                         | 3 | 4 | Complete |   |        |     |  |  |  |
| <b>Inputs</b>  |  |                  |   | 105 | 110     | 110                      | 100 |   |   |              |   |               |   |                      |                           |   |   |          |   |        | 425 |  |  |  |
| <b>Outputs</b>   |  |                  |   | 105 | 110     | 110                      | 100 |   |   |              |   |               |   |                      |                           |   |   |          |   |        | 425 |  |  |  |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |     |         | ADMINISTRATIVE LEADTIME: |     |   |   | 6 Months     |   |               |   | PRODUCTION LEADTIME: |                           |   |   | 6 Months |   |        |     |  |  |  |
| Contract Dates:  |  | FY 1997          |   |     |         | FY 1998                  |     |   |   | FY 1999      |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |
| Delivery Date:   |  | FY 1997          |   |     |         | FY 1998                  |     |   |   | FY 1999      |   |               |   |                      |                           |   |   |          |   |        |     |  |  |  |

| INDIVIDUAL MODIFICATION          |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | Date                 |    | February 1998 |        |  |  |     |  |
|----------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|----------------------|----|---------------|--------|--|--|-----|--|
| MODIFICATION TITLE (Cont):       |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | Block 2 Upgrade TBD2 |    |               |        |  |  | len |  |
| FINANCIAL PLAN: (\$ in Millions) |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
|                                  | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC                   |    | TOTAL         |        |  |  |     |  |
|                                  | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty                  | \$ | Qty           | \$     |  |  |     |  |
| RDT&E                            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| PROCUREMENT                      |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Kit Quantity                     |                   |    |         |    |         |    |         |    |         | 425 |         |    |         |    |         |    |                      |    | 425           |        |  |  |     |  |
| Installation Kits                |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Installation Kits, Nonrecurring  |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Equipment                        |                   |    |         |    |         |    |         |    |         |     | 2.480   |    |         |    |         |    | 8.995                |    |               | 11.475 |  |  |     |  |
| Equipment, Nonrecurring          |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.110                |    |               | 0.110  |  |  |     |  |
| Engineering Change Orders        |                   |    |         |    |         |    |         |    |         |     | 0.082   |    |         |    |         |    | 0.350                |    |               | 0.432  |  |  |     |  |
| Engineering Support              |                   |    |         |    |         |    |         |    |         |     | 0.263   |    |         |    |         |    | 2.425                |    |               | 2.688  |  |  |     |  |
| Testing                          |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.650                |    |               | 0.650  |  |  |     |  |
| Support Equipment                |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| Other                            |                   |    |         |    |         |    |         |    |         |     | 0.085   |    |         |    |         |    | 0.305                |    |               | 0.390  |  |  |     |  |
| Fielding                         |                   |    |         |    |         |    |         |    |         |     | 0.022   |    |         |    |         |    | 0.076                |    |               | 0.098  |  |  |     |  |
| Installation of Hardware         |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1996 & Prior Eqpt -- Kits     |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1997 Eqpt -- Kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1998 Eqpt -- Kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 1999 Eqpt -- Kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2000 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2001 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2002 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| FY 2003 Eqpt -- kits             |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |                      |    |               |        |  |  |     |  |
| TC Equip-Kits                    |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.952                |    |               | 0.952  |  |  |     |  |
| Total Installment                |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    | 0.952                |    |               | 0.952  |  |  |     |  |
| Total Procurement Cos            |                   |    |         |    |         |    |         |    |         |     | 2.9     |    |         |    |         |    | 13.9                 |    |               | 16.8   |  |  |     |  |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 13          | 15      | 24      | 24      | 10      | 15      | 25      | 25      | 34      | 45      | 399         | 629        |
| Gross Cost       | 31.2        | 33.9    | 54.4    | 55.5    | 31.9    | 38.2    | 57.4    | 58.2    | 77.8    | 101.8   | 1029.3      | 1569.4     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 31.2        | 33.9    | 54.4    | 55.5    | 31.9    | 38.2    | 57.4    | 58.2    | 77.8    | 101.8   | 1029.3      | 1569.4     |
| Initial Spares   |             | 2.9     | 1.6     | 2.0     | 0.8     | 2.9     | 3.2     | 3.1     | 4.2     | 4.2     | 63.2        | 88.0       |
| Total Proc Cost  | 31.2        | 36.8    | 56.0    | 57.5    | 32.7    | 41.1    | 60.5    | 61.3    | 82.0    | 105.9   | 1092.4      | 1657.5     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 2.4         | 2.3     | 2.3     | 2.3     | 3.2     | 2.5     | 2.3     | 2.3     | 2.3     | 2.3     | 2.6         | 2.5        |

**DESCRIPTION:** The M88A2 HERCULES is an armored, full-tracked, diesel-powered, recovery vehicle configured with an A-frame boom, three winches, and a spade. The boom has a 35 ton lift capacity and the main winch has a constant pull capacity of 70 tons. The hull is armored for protection against small arms fire, artillery fragments and anti-personnel mines. The vehicle mounts a caliber .50 machine gun for self-protection. The M88A2 HERCULES is capable of performing recovery, evacuation, and limited repair of the main battle tank. The FY98 procurement is the first year of full rate production following a Milestone III decision in August 1997. The procurement objective for the HERCULES is 629 vehicles.

**JUSTIFICATION:** The present 56 ton M88A1 is deficient in its ability to safely perform battlefield recovery of vehicles weighing 60 tons or more. The M88A1 cannot safely recover the Army's current main battle tank, the Abrams Tank, without using a second vehicle as a brake vehicle. The present lack of recovery capability has necessitated the development of a heavy recovery vehicle to provide a towing capability for vehicles weighing up to 70 tons. Future Army vehicles exceeding the M88A1's capability include the Grizzly, Wolverine, and Crusader. The M88A2 HERCULES will provide the Army this capability. The M88A2 program strategy is to modify the existing M88 recovery vehicle chassis, upgrade the propulsion system to 1050 horsepower, add armor protection, improve winching to 70 tons, improve hoisting to 35 tons, and add a hydraulic assisted braking system.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>IMPROVED RECOVERY VEHICLE (M88<br>MOD) (GA0570) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Vehicle Manufacturing - Contractor             |  | A  | 45841        | 24   | 1910   | 44421        | 24   | 1851                | 19153        | 10   | 1915                   | 28395        | 15   | 1893     |
| 2. Vehicle Manufacturing - GFE                    |  |  | 2193         | *24  | VAR  | 2390         | *24  | VAR                 | 972          | *10  | VAR                    | 1471         | *15  | VAR      |
| 3. Contractor Engineering                         |  |  | 1349         |      |  | 3152         |      |                     | 3205         |      |                        | 3159         |      |          |
| 4. Engineering Change Orders                      |  |  | 125          |      |  | 318          |      |                     | 604          |      |                        | 893          |      |          |
| 5. Project Management - Core                      |  |  | 870          |      |  | 974          |      |                     | 1006         |      |                        | 1014         |      |          |
| 6. Project Management - OGA                       |  |  | 1116         |      |  | 1017         |      |                     | 1118         |      |                        | 1128         |      |          |
| 7. Transportation                                 |  |  | 48           |      |  | 48           |      |                     | 23           |      |                        | 36           |      |          |
| 8. Fielding                                       |  |  | 873          |      |  | 580          |      |                     | 1192         |      |                        | 1052         |      |          |
| 9. Testing  |  |  | 1890         |      |  | 959          |      |                     | 649          |      |                        |              |      |          |
| 10. Test Vehicle Refurb                           |  |  | 58           |      |  | 1670         |      |                     |              |      |                        |              |      |          |
| 11. Depot Maintenance - Premodification           |  |  |              |      |  |              |      |                     |              |      |                        | 1027         |      |          |
| 12. Congressional Increase (ECP)                  |  |  |              |      |  |              |      |                     | 4000         |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>54363</b> |      |  | <b>55529</b> |      |                     | <b>31922</b> |      |                        | <b>38175</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
 Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570)

| WBS Cost Elements:<br>Fiscal Years           | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--|-------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. Vehicle Manufacturing - Contractor</b> |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96  | UDLP (1)                | SS-FFP                   | TACOM           | Apr-96     | Jul-97                 | 24       | 1910            | YES              |                  | Nov-95         |
| FY 97  | UDLP                    | SS-FFP                   | TACOM           | Apr-97     | Jul-98                 | 24       | 1851            | YES              |                  | Nov-96         |
| FY 98  | UDLP                    | SS-FFP                   | TACOM           | Apr-98     | Jul-99                 | 10       | 1915            | YES              |                  | Nov-97         |
| FY 99  | UDLP                    | SS-FFP                   | TACOM           | Apr-99     | Nov-00                 | 15       | 1893            | YES              |                  | Nov-98         |
| <b>2. Vehicle Manufacturing - GFE</b>        |                         |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96  | Various                 | Reqn/PO                  | Various         |            |                        | 24       | VAR             | YES              |                  |                |
| FY 97  | Various                 | Reqn/PO                  | Various         |            |                        | 24       | VAR             | YES              |                  |                |
| FY 98  | Various                 | Reqn/PO                  | Various         |            |                        | 10       | VAR             | YES              |                  |                |
| FY 99  | Various                 | Reqn/PO                  | Various         |            |                        | 15       | VAR             | YES              |                  |                |

REMARKS: (1) UDLP - United Defense Limited Partnership

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature:                       |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     | Date:         |     |     |     |     |     |     |     |           |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|---------------|-----|-----|-----|-----|-----|-----|-----|-----------|
|                                       |     |       |      |               |                       |                     | IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     | February 1998 |     |     |     |     |     |     |     |           |
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96                               |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 97   |     |     |     |               |     |     |     |     |     |     |     | L A T E R |
|                                       |     |       |      |               |                       |                     | Calendar Year 96                             |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 97 |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB           | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contr      |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 96 | A    | 24            | 0                     | 24                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     | 2   | 2   | 2   | 18        |
|                                       | 1   | FY 97 | A    | 24            | 0                     | 24                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 24  |           |
|                                       | 1   | FY 98 | A    | 10            | 0                     | 10                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 10  |           |
|                                       | 1   | FY 99 | A    | 15            | 0                     | 15                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 15  |           |
|                                       | 1   | FY 00 | A    | 25            | 0                     | 25                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 25  |           |
|                                       | 1   | FY01  | A    | 25            | 0                     | 25                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 25  |           |
|                                       | 1   | FY 02 | A    | 34            | 0                     | 34                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 34  |           |
|                                       | 1   | FY 03 | A    | 45            | 0                     | 45                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     | 45  |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     |     |     |     |           |
| TOTAL                                 |     |       |      | 202           | 0                     | 202                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |     |               |     |     |     |     | 2   | 2   | 2   | 196       |

  

| MFR             | PRODUCTION RATES |       |      | REACHED | MFR    | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS |
|-----------------|------------------|-------|------|---------|--------|-----------------|--------------|--------------|--------------|---------|
| NAME / LOCATION | MIN.             | 1-8-5 | MAX. | D +     | Number | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |         |
| 1 UDLP York, PA | 2                | 3     | 5    |         |        |                 |              | 6            | 15           | 21      |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |
|                 |                  |       |      |         |        |                 |              |              |              |         |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature:<br>IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |     |     |     |     |     |     |     |     |     |     |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 99   |                        |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |     |       |      |               |                       |                     | Calendar Year 98   |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 99 |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |     |       |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |     |       |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | FY 96 | A    | 24            | 6                     | 18                  | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2                | 2                      | 2   | 2   | 2   | 2   | 2   | 2   | 2   |     |     |     |           |
|                                       | 1   | FY 97 | A    | 24            | 0                     | 24                  |  |     |     |     |     |     |     |     | 2   | 2   | 2   | 2   | 2                | 2                      | 2   | 2   | 2   | 2   | 2   | 2   | 2   |     |     |     |           |
|                                       | 1   | FY 98 | A    | 10            | 0                     | 10                  |  |     |     |     |     | A   |     |     |     |     |     |     |                  |                        |     |     |     |     | 2   | 2   | 2   |     |     |     |           |
|                                       | 1   | FY 99 | A    | 15            | 0                     | 15                  |  |     |     |     |     |     |     |     |     |     |     |     | A                |                        |     |     |     |     |     |     | 15  |     |     |     |           |
|                                       | 1   | FY 00 | A    | 25            | 0                     | 25                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |                        |     |     |     |     |     |     | 25  |     |     |     |           |
|                                       | 1   | FY01  | A    | 25            | 0                     | 25                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |                        |     |     |     |     |     |     | 25  |     |     |     |           |
|                                       | 1   | FY 02 | A    | 34            | 0                     | 34                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |                        |     |     |     |     |     |     | 34  |     |     |     |           |
|                                       | 1   | FY 03 | A    | 45            | 0                     | 45                  |  |     |     |     |     |     |     |     |     |     |     |     |                  |                        |     |     |     |     |     |     | 45  |     |     |     |           |
| TOTAL                                 |     |       |      | 202           | 6                     | 196                 | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2                | 2                      | 2   | 2   | 2   | 2   | 2   | 2   | 148 |     |     |     |           |

  

| MFR | NAME / LOCATION | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|-----------------|------------------|-------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---------|
|     |                 | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | UDLP York, PA   | 2                | 3     | 5    |             |            |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | INITIAL    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | REORDER    |                 | 6            | 15               | 21                 |         |
|     |                 |                  |       |      |             | INITIAL    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | REORDER    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | INITIAL    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | REORDER    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | INITIAL    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | REORDER    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | INITIAL    |                 |              |                  |                    |         |
|     |                 |                  |       |      |             | REORDER    |                 |              |                  |                    |         |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |                  |       |               |                       |                     | P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     | Date: February 1998 |     |     |     |     |     |     |     |           |
|---------------------------------------|-----------------|------------------|-------|---------------|-----------------------|---------------------|---|--------------|------------------|--------------------|--|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR             | FY               | SERV  | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00  |              |                  |                    |  |     |     |     |     |     |     |     | Fiscal Year 01   |     |     |     |                     |     |     |     |     |     |     |     | L A T E R |
|                                       |                 |                  |       |               |                       |                     | Calendar Year 00  |              |                  |                    |  |     |     |     |     |     |     |     | Calendar Year 01 |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     | OCT   | NOV          | DEC              | JAN                | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB                 | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 96            | A     | 24            | 24                    |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 97            | A     | 24            | 24                    |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 98            | A     | 10            | 6                     | 4                   | 2   | 2            |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       | 1               | FY 99            | A     | 15            | 0                     | 15                  |   |              |                  |                    |  |     |     |     |     |     |     | 1   | 2                | 2   | 2   | 2   | 2                   | 2   | 2   | 2   | 2   |     |     |     |           |
|                                       | 1               | FY 00            | A     | 25            | 0                     | 25                  |   |              |                  |                    | A  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     | 2   | 2   | 2   | 19  |           |
|                                       | 1               | FY01             | A     | 25            | 0                     | 25                  |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     | A                   |     |     |     |     |     | 25  |     |           |
|                                       | 1               | FY 02            | A     | 34            | 0                     | 34                  |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     | 34  |     |           |
|                                       | 1               | FY 03            | A     | 45            | 0                     | 45                  |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     | 45  |     |           |
| TOTAL                                 |                 |                  |       | 202           | 54                    | 148                 | 2   | 2            |                  |                    |  |     |     |     |     |     |     | 1   | 2                | 2   | 2   | 2   | 2                   | 2   | 2   | 2   | 2   | 2   | 123 |     |           |
|                                       |                 |                  |       |               |                       |                     | OCT   | NOV          | DEC              | JAN                | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN | FEB                 | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| MFR                                   | NAME / LOCATION | PRODUCTION RATES |       |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME   |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 | MIN.             | 1-8-5 | MAX.          |                       |                     | Prior 1 Oct.  | After 1 Oct. |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
| 1                                     | UDLP York, PA   | 2                | 3     | 5             |                       |                     |   |              |                  |                    | Production break due to quantities below the minimum sustaining rate of two vehicles per month. Possibility of FMS and Direct Sales during this timeframe may eliminate the break in production. |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |
|                                       |                 |                  |       |               |                       |                     |   |              |                  |                    |  |     |     |     |     |     |     |     |                  |     |     |     |                     |     |     |     |     |     |     |     |           |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                 |       |                  |                     |                                |                              | P-1 Item Nomenclature:<br>IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             | Date:<br>February 1998 |             |             |             |             |             |             |             |                       |
|---------------------------------------|-----------------|-------|------------------|---------------------|--------------------------------|------------------------------|--|---------------|-----------------|--------------|--------------|--------------|--|-------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------|
| COST ELEMENTS                         | M<br>F<br>R     | FY    | S<br>E<br>R<br>V | PROC<br>QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT | Fiscal Year 04   |               |                 |              |              |              |  |             |             |             |             |             | Fiscal Year 05   |             |             |             |                        |             |             |             |             |             |             |             | L<br>A<br>T<br>E<br>R |
|                                       |                 |       |                  |                     |                                |                              | Calendar Year 04   |               |                 |              |              |              |  |             |             |             |             |             | Calendar Year 05 |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              | O<br>C<br>T  | N<br>O<br>V   | D<br>E<br>C     | J<br>A<br>N  | F<br>E<br>B  | M<br>A<br>R  | A<br>P<br>R  | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B            | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                       |
| 1. Vehicle Manufacturing - Contrac    |                 |       |                  |                     |                                |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 96 | A                | 24                  | 24                             |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 97 | A                | 24                  | 24                             |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 98 | A                | 10                  | 10                             |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 99 | A                | 15                  | 15                             |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 00 | A                | 25                  | 25                             |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY01  | A                | 25                  | 25                             |                              |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 02 | A                | 34                  | 7                              | 27                           | 3  | 3             | 3               | 3            | 3            | 3            | 3  | 3           | 3           |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       | 1               | FY 03 | A                | 45                  | 0                              | 45                           |  |               |                 |              |              |              |  | 3           | 3           | 3           | 4           | 4           | 4                | 4           | 4           | 4           | 4                      | 4           | 4           | 4           |             |             |             |             |                       |
| TOTAL                                 |                 |       |                  | 202                 | 130                            | 72                           |  |               |                 |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             | 72          |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              | O<br>C<br>T  | N<br>O<br>V   | D<br>E<br>C     | J<br>A<br>N  | F<br>E<br>B  | M<br>A<br>R  | A<br>P<br>R  | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B            | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                       |
| M<br>F<br>R                           | NAME / LOCATION |       |                  |                     | PRODUCTION RATES               |                              | REACHED  | MFR<br>Number | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     | MIN.                           | 1-8-5                        | MAX.   | D +           | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
| 1                                     | UDLP York, PA   |       |                  |                     | 2                              | 3                            | 5  |               |                 |              |              | 21           | Production break due to quantities below the minimum sustaining rate of two vehicles per month. Possibility of FMS and Direct Sales during this timeframe may eliminate the break in production. |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | INITIAL         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | REORDER         |              | 6            | 15           |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | INITIAL         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | REORDER         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | INITIAL         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | REORDER         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | INITIAL         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |
|                                       |                 |       |                  |                     |                                |                              |  |               | REORDER         |              |              |              |  |             |             |             |             |             |                  |             |             |             |                        |             |             |             |             |             |             |             |                       |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: SMALL ARMS (SOLDIER ENH PROG) (GC0076)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 2.4     | 5.3     | 4.1     | 5.2     | 5.3     | 3.6     | 0.3     | 2.0     | 0.0         | 28.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 2.4     | 5.3     | 4.1     | 5.2     | 5.3     | 3.6     | 0.3     | 2.0     | 0.0         | 28.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 2.4     | 5.3     | 4.1     | 5.2     | 5.3     | 3.6     | 0.3     | 2.0     | 0.0         | 28.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** This program provides small arms equipment for the soldier, a HMMWV Mount, Dual Mount. The HMMWV Mount provides the soldier with a pedestal and a mount for firing the M249 Squad Automatic Weapon (SAW) and M60 Machine Gun from the M998 HMMWV and a mount for firing the M249 from the M1025/1026 HMMWV. The Dual Mount can be used in both the vehicular (Armament HMMWV) and ground mount application for the MK19 Grenade Machine Gun (GMG) and M2 Heavy Barrel Machine Gun.

**JUSTIFICATION:** Certain applications of the M998 HMMWV require that weapons be displayed and be available quickly for enemy confrontation. The field has devised several non-standard and possibly unsafe methods of mounting weapons on the M998. This program will provide a standard, supportable weapon mount. Military Police and certain infantry units currently mount the M60 Machine Gun on the M1025/1026. As the M60 is replaced by the M249 Machine Gun the need to mount the M249 on the M1025/1026 HMMWV arises. The Dual Mount will be fielded to scout platoons enabling them to install or switch weapons quickly in the event one vehicle goes down. In addition, procurement quantities have been increased to allow fielding to Infantry Anti-Armor and Military Police units. The system corrects the shortcomings of the current MK64 system allowing for bold and accurate traverse and elevation, further range (elevation) for the MK19, recoil attention of the M2 Machine Gun and capability for range card preparation.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |             |                | P-1 Line Item Nomenclature:<br>SMALL ARMS (SOLDIER ENH PROG)<br>(GC0076) |             |                | Weapon System Type: |             |                | Date:<br>February 1998 |             |                |
|---|----------|---|-------------|----------------|--|-------------|----------------|---------------------|-------------|----------------|------------------------|-------------|----------------|
| WTCV<br>Cost Elements                     | ID<br>CD | FY 96   |             |                | FY 97  |             |                | FY 98               |             |                | FY 99                  |             |                |
|   |          | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$ |
| 1. Hardware                               |          |   |             |                |  |             |                |                     |             |                |                        |             |                |
| MK93 MOD 1 DUAL MOUNT                     |          | 1600  | 1029        | 1555           | 221  | 103         | 2146           |                     |             |                | 2731                   | 1241        | 2201           |
| Dual Mount - New Contract                 |          |   |             |                | 1300   | 500         | 2600           |                     |             |                |                        |             |                |
| HMMWV M249 Mount M998 (Quantity)          |          | 197   | 120         | 1642           | 1254   | 660         | 1900           | 1583                | 660         | 2398           |                        |             |                |
| HMMWV Mount M1025/1026 (Quantity)         |          | 36  | 80          | 450            | 660  | 1320        | 500            | 583                 | 1740        | 335            | 905                    | 2550        | 355            |
| MK93 MOD1 (ECP)                           |          |   |             |                |  |             |                |                     |             |                | 390                    |             |                |
| 2. ESIP                                   |          |   |             |                |  |             |                |                     |             |                |                        |             |                |
| Dual Mount                                |          | 225   |             |                | 459  |             |                |                     |             |                | 270                    |             |                |
| HMMWV M249 Mount                          |          | 117   |             |                | 398  |             |                | 560                 |             |                | 250                    |             |                |
| 3. Testing                                |          |   |             |                |  |             |                |                     |             |                |                        |             |                |
| Dual Mount                                |          | 50  |             |                |  |             |                |                     |             |                | 50                     |             |                |
| HMMWV M249 Mount                          |          |   |             |                | 450  |             |                | 550                 |             |                | 207                    |             |                |
| 4. Integrated Logistics Support           |          |   |             |                |  |             |                |                     |             |                |                        |             |                |
| Dual Mount                                |          | 25  |             |                | 20   |             |                |                     |             |                |                        |             |                |
| HMMWV M249 Mount                          |          | 47  |             |                | 153  |             |                | 50                  |             |                | 200                    |             |                |
| Materiel Release/Engineering Studies      |          | 53  |             |                | 293  |             |                | 537                 |             |                |                        |             |                |
| 5. Fielding                               |          |   |             |                |  |             |                |                     |             |                |                        |             |                |
| HMMWV M249 Mount                          |          |   |             |                | 130  |             |                | 230                 |             |                | 230                    |             |                |
| <b>TOTAL</b>                              |          | <b>2350</b>   |             |                | <b>5338</b>  |             |                | <b>4093</b>         |             |                | <b>5233</b>            |             |                |

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
February 1998

Appropriation / Budget Activity/Serial No:  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and  
Other Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature:  
SMALL ARMS (SOLDIER ENH PROG) (GC0076)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|--|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| DUAL MOUNT/FY96                      | Fraser Manufacturing Corp              | C/FFP                    | ACALA           | May-96     | Jan-98                 | 1029     | 1555         | Yes              | Yes              |                |
| DUAL MOUNT/FY97                      | Fraser Manufacturing Corp              | C/FFP                    | ACALA           | May-97     | Jul-98                 | 366      | 2146         |                  |                  |                |
| DUAL MOUNT/FY97 New Contract         |  |                          |                 | Sep-97     | Dec-98                 | 500      | 2600         |                  |                  |                |
| HMMWV M249 MOUNT/FY96<br>M6 Pedestal | Ramo Manufacture Inc.<br>Nashville, Tn | C/FFP                    | ARDEC           | Jul-96     | Apr-97                 | 120      | 1642         | Yes              | No               |                |
| M197                                 | Nautic-All                             | C/FFP                    | ARDEC           | Aug-96     | Mar-97                 | 200      | 450          |                  |                  |                |
| HMMWV M249 MOUNT/FY97<br>M6 Pedestal | Ramo Manufacture Inc.<br>Nashville, Tn | C/FFP<br>(Option)        | ARDEC           | Sep-97     | Feb-98                 | 660      | 1900         | Yes              | No               |                |
| M197 Mount                           | Ma-Tech Inc. Hebron, Va                | C/FFP                    | ARDEC           | Sep-97     | Feb-98                 | 2005     | 500          |                  |                  |                |
| HMMWV M249 MOUNT/FY98<br>M6 Pedestal | Ramo Manufacture Inc.<br>Nashville, Tn | C/FFP<br>(Option)        | ARDEC           | Mar-98     | Jan-99                 | 660      | 2064         |                  |                  |                |
| M197 Mount                           | Ma-Tech Inc, Hebron, Va                | SS/8A                    | ACALA           | Jun-98     | Dec-98                 | 2400     | 335          |                  |                  | Jan-98         |
| HMMWV M249 MOUNT/FY99<br>M197 Mount  | Ma-Tech Inc, Hebron, Va                | C/FFP                    | ACALA           | Jan-99     | Dec-99                 | 2550     | 355          |                  |                  |                |
| Dual Mount/FY99                      | TBS                                    | C/FFP                    | ACALA           | Jan-99     | Jan-00                 | 1241     | 2201         |                  |                  |                |

REMARKS:

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)

Program Elements for Code B Items: Code: B Other Related Program Elements: 64649

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 2       | 6       | 7       | 9       | 13      | 18      | 22      | 23      | 365         | 465        |
| Gross Cost       | 0.0         | 0.0     | 14.6    | 51.4    | 41.3    | 50.4    | 68.6    | 86.5    | 106.5   | 116.5   | 2112.0      | 2647.8     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 14.6    | 51.4    | 41.3    | 50.4    | 68.6    | 86.5    | 106.5   | 116.5   | 2112.0      | 2647.8     |
| Initial Spares   |             |         |         |         | 0.9     | 0.9     | 1.4     | 1.4     | 1.8     | 2.1     | 36.2        | 44.6       |
| Total Proc Cost  | 0.0         | 0.0     | 14.6    | 51.4    | 42.2    | 51.3    | 70.0    | 87.9    | 108.3   | 118.6   | 2148.2      | 2692.4     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         | 7.3     | 8.6     | 5.9     | 5.6     | 5.3     | 4.8     | 4.8     | 5.1     | 5.8         | 5.7        |

**DESCRIPTION:** The Wolverine (Heavy Assault Bridge) is a 26 meter (79 feet) Military Load Class 70 bridge transported on a modified M1A2 System Enhancement Package (SEP) Abrams Tank chassis. The bridge is capable of spanning gaps up to 24 meters on both prepared and unprepared abutments and can be placed on a bearing surface over its entire length. It is launched under armor within five minutes and can be retrieved, from either end, in less than ten minutes. The Wolverine is operated by a crew of two soldiers and will be employed by Combat Engineer units in both offensive and defensive combined arms operations. Its mission is to provide gap crossing capability for heavy maneuver forces. It is planned to support the Abrams Tank System and the Bradley Fighting Vehicle and is compatible with these systems in mobility and survivability.

**JUSTIFICATION:** During Operation Desert Storm, it became evident that the current Army bridging system was deficient in gap spanning capability and required increased load carrying capability. The Wolverine will replace the Armored Vehicle Launched Bridge (AVLB) providing increased worldwide gap crossing capabilities, increased load capacity to support Military Load Class 70 vehicles and improved mobility, survivability, and logistics compatibility. The Wolverine enhances the Combined Arms Team's ability to move where it wants, multiplying its combat capabilities. First Unit Equipped will be in FY00 at a quantity of 12 vehicles.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD)<br>(GZ3250) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Vehicle Manufacturing - Contractor             |  | B  | 10048        | 2    | 5024  | 32618        | 6    | 5436                | 27376        | 7    | 3911                   | 35261        | 9    | 3918     |
| 2. Vehicle Manufacturing - ANAD                   |  |  |              |      |   | 1212         | 6    | 202                 | 1600         | 7    | 229                    | 2100         | 9    | 233      |
| 3. Vehicle Manufacturing - GFE                    |  |  | 1861         |      |   |              |      |                     | 2260         | 7    | 323                    | 2940         | 9    | 327      |
| 4. Contract Engineering                           |  |  | 1330         |      |   | 15513        |      |                     | 7000         |      |                        | 6990         |      |          |
| 5. Engineering Change Orders                      |  |  |              |      |   |              |      |                     | 730          |      |                        | 950          |      |          |
| 6. Project Mgmt Admin - Core                      |  |  | 482          |      |   | 844          |      |                     | 730          |      |                        | 750          |      |          |
| 7. Project Mgmt Admin - OGA                       |  |  | 890          |      |   | 1204         |      |                     | 1260         |      |                        | 1160         |      |          |
| 8. New Equipment Training                         |  |  |              |      |   |              |      |                     | 340          |      |                        | 230          |      |          |
| 9. Total Package Fielding                         |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 10. Transportation                                |  |  |              |      |   | 10           |      |                     | 15           |      |                        | 20           |      |          |
| <b>TOTAL</b>                                      |  |  | <b>14611</b> |      |   | <b>51401</b> |      |                     | <b>41311</b> |      |                        | <b>50401</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked**  
 Weapon System Type: **Combat Vehicles**  
 P-1 Line Item Nomenclature: **HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250)**

| WBS Cost Elements:<br>Fiscal Years    | Contractor and Location                 | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |     |
|---------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|-----|
| 1. Vehicle Manufacturing - Contractor | General Dynamics Land Sys<br>Lima, Ohio | SS-CPFF                  | TACOM           | Aug-96     |                        | 2        | 5024            | YES              |                  |                |     |
| FY 96                                 |   |                          |                 |            |                        | 4        | *6199           | YES              |                  |                |     |
| FY 97                                 |   |                          |                 |            |                        | 2        | *3911           | YES              |                  | Aug-97         |     |
| FY98                                  |   |                          |                 |            |                        | M2(1)    | TACOM           | Jan-98           |                  |                |     |
| FY99                                  |   |                          |                 |            |                        | SS-FFP   | TACOM           | Jan-98           | 7                | 3911           | YES |
|                                       |   | M2(1)                    | TACOM           | Nov-98     |                        | 9        | 3918            | YES              |                  | Jul-98         |     |
| 2. Vehicle Manufacturing - ANAD       | Anniston Army Depot                     |                          |                 |            |                        | **6      | 202             |                  |                  |                |     |
| FY 97                                 |   |                          |                 |            |                        | 7        | 229             |                  |                  |                |     |
| FY 98                                 |   |                          |                 |            |                        | 9        | 233             |                  |                  |                |     |
| FY 99                                 |   |                          |                 |            |                        |          |                 |                  |                  |                |     |
| 3. Vehicle Manufacturing - GFE        | Government Furnished Equipment          |                          |                 |            |                        |          |                 |                  |                  |                |     |
| FY 96                                 |   |                          |                 |            |                        | 7        | 323             |                  |                  |                |     |
| FY 97                                 |   |                          |                 |            |                        | 9        | 327             |                  |                  |                |     |
| FY 98                                 |   |                          |                 |            |                        |          |                 |                  |                  |                |     |
| FY 99                                 |   |                          |                 |            |                        |          |                 |                  |                  |                |     |

**REMARKS:** \*The first four vehicles of the FY97 funds were purchased as an option in Dec 96 on the Aug 96 Pilot Vehicle contract. The unit price is much greater due to the nonrecurring costs to be incurred in preparing for production such as tooling costs. The last 2 vehicles will be included in the Jan 98 MYP award at the same unit price as the FY98 buy.  
 \*\*PM Abrams provided PM Wolverine with two refurbished chassis for the first two LRIP vehicles.

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |   |       |      |                  |                          |                        | P-1 Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |             |                 |             |             |              |              |              |             |             |             |             |                  |             | Date:<br>February 1998 |             |             |             |             |             |             |             |             |             |                            |
|---------------------------------------|---|-------|------|------------------|--------------------------|------------------------|---|-------------|-----------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|------------------|-------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------|
| COST ELEMENTS                         | MFR   | FY    | SERV | PROC QTY<br>Each | ACCEP. PRIOR<br>TO 1 OCT | BAL DUE<br>AS OF 1 OCT | Fiscal Year 96  |             |                 |             |             |              |              |              |             |             |             |             | Fiscal Year 97   |             |                        |             |             |             |             |             |             |             |             |             | L<br>A<br>S<br>T<br>E<br>R |
|                                       |   |       |      |                  |                          |                        | Calendar Year 96  |             |                 |             |             |              |              |              |             |             |             |             | Calendar Year 97 |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       |   |       |      |                  |                          |                        | O<br>C<br>T   | N<br>O<br>V | D<br>E<br>C     | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R  | A<br>P<br>R  | M<br>A<br>Y  | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P | O<br>C<br>T      | N<br>O<br>V | D<br>E<br>C            | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |                            |
| 1. Vehicle Manufacturing - Contrac    |   |       |      |                  |                          |                        |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 96 | A    | 2                | 0                        | 2                      |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 97 | A    | 6                | 0                        | 6                      |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             | A           |             |             |             |             |             |             |                            |
|                                       | 1   | FY 98 | A    | 7                | 0                        | 7                      |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 99 | A    | 9                | 0                        | 9                      |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 00 | A    | 13               | 0                        | 13                     |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 01 | A    | 18               | 0                        | 18                     |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 02 | A    | 22               | 0                        | 22                     |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | 1   | FY 03 | A    | 23               | 0                        | 23                     |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
| TOTAL                                 |   |       |      | 100              |                          | 100                    |   |             |                 |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             | 100         |             |             |                            |
| MFR                                   | NAME / LOCATION                                       |       |      | PRODUCTION RATES |                          |                        | REACHED   | MFR Number  | ADMIN LEAD TIME |             |             | MFR          | TOTAL        |              |             | REMARKS     |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       |   |       |      | MIN.             | 1-8-5                    | MAX.                   | D +   |             | Prior 1 Oct.    |             |             | After 1 Oct. | After 1 Oct. | After 1 Oct. |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
| 1                                     | GENERAL DYNAMICS LAND SYSTEMS                         |       |      | N/A*             | 8                        | N/A*                   |   |             | INITIAL         |             |             |              |              | 40           |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | LIMA, OH  |       |      |                  |                          |                        |   |             | REORDER         |             |             |              |              | 39           |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | *HAB vehicles will be produced on the same production |       |      |                  |                          |                        |   |             | INITIAL         |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       | line as the M1A2 SEP vehicles                         |       |      |                  |                          |                        |   |             | REORDER         |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       |   |       |      |                  |                          |                        |   |             | INITIAL         |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       |   |       |      |                  |                          |                        |   |             | REORDER         |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       |   |       |      |                  |                          |                        |   |             | INITIAL         |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |
|                                       |   |       |      |                  |                          |                        |   |             | REORDER         |             |             |              |              |              |             |             |             |             |                  |             |                        |             |             |             |             |             |             |             |             |             |                            |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |     |     |     |     |     |     |     |     |     |     |     |                  |     |     | Date:<br>February 1998 |     |           |     |     |     |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|-----|------------------------|-----|-----------|-----|-----|-----|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98  |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 99   |     |     |                        |     | L A T E R |     |     |     |
|                                       |     |       |      |               |                       |                     | Calendar Year 98  |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 99 |     |     |                        |     |           |     |     |     |
|                                       |     |       |      |               |                       |                     | OCT   | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC | JAN                    | FEB |           | MAR | APR | MAY |
| 1. Vehicle Manufacturing - Contrac    |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                        |     |           |     |     |     |
|                                       | 1   | FY 96 | A    | 2             | 0                     | 2                   |   |     |     |     |     |     |     |     |     |     |     |     |                  | 1   | 1   |                        |     |           |     |     |     |
|                                       | 1   | FY 97 | A    | 6             | 0                     | 6                   |   |     |     | A   |     |     |     |     |     |     |     |     |                  |     |     | 2                      | 2   | 1         | 1   |     |     |
|                                       | 1   | FY 98 | A    | 7             | 0                     | 7                   |   |     |     | A   |     |     |     |     |     |     |     |     |                  |     |     |                        |     |           |     | 7   |     |
|                                       | 1   | FY 99 | A    | 9             | 0                     | 9                   |   |     |     |     |     |     |     |     |     |     | A   |     |                  |     |     |                        |     |           |     | 9   |     |
|                                       | 1   | FY 00 | A    | 13            | 0                     | 13                  |   |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                        |     |           |     | 13  |     |
|                                       | 1   | FY 01 | A    | 18            | 0                     | 18                  |   |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                        |     |           |     | 18  |     |
|                                       | 1   | FY 02 | A    | 22            | 0                     | 22                  |   |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                        |     |           |     | 22  |     |
|                                       | 1   | FY 03 | A    | 23            | 0                     | 23                  |   |     |     |     |     |     |     |     |     |     |     |     |                  |     |     |                        |     |           |     | 23  |     |
| TOTAL                                 |     |       |      | 100           |                       | 100                 |   |     |     |     |     |     |     |     |     |     |     |     |                  | 1   | 1   |                        | 2   | 2         | 1   | 1   | 92  |

  

| MFR | NAME / LOCATION  | PRODUCTION RATES |       |      | REACHED D+ | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|--|------------------|-------|------|------------|------------|-----------------|--------------|------------------|--------------------|---------|
|     |  | MIN.             | 1-8-5 | MAX. |            |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | GENERAL DYNAMICS LAND SYSTEMS  | N/A*             | 8     | N/A* |            |            | 6               | 3            | 19               | 22                 |         |
|     | LIMA, OH   |                  |       |      |            |            |                 | 9            | 18               | 27                 |         |
|     | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |      |               |                       |                     | P-1 Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |              |                 |              |              |              |       |     |         |     |     |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|--|-------|------|---------------|-----------------------|---------------------|---|--------------|-----------------|--------------|--------------|--------------|-------|-----|---------|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR  | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00  |              |                 |              |              |              |       |     |         |     |     |     | Fiscal Year 01   |                        |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |  |       |      |               |                       |                     | Calendar Year 00  |              |                 |              |              |              |       |     |         |     |     |     | Calendar Year 01 |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     | OCT   | NOV          | DEC             | JAN          | FEB          | MAR          | APR   | MAY | JUN     | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle Manufacturing - Contrac    |  |       |      |               |                       |                     |   |              |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 96 | A    | 2             | 2                     |                     |   |              |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 97 | A    | 6             | 6                     |                     |   |              |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 98 | A    | 7             | 0                     | 7                   | 1   | 1            | 1               |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 99 | A    | 9             | 0                     | 9                   |   |              |                 |              |              | 1            | 1     |     | 1       | 1   | 1   | 1   |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1  | FY 00 | A    | 13            | 0                     | 13                  |   | A            |                 |              |              | A            |       |     |         |     |     |     |                  | 1                      | 1   | 1   | 1   | 1   | 8   |     |     |     |     |     |           |
|                                       | 1  | FY 01 | A    | 18            | 0                     | 18                  |   |              |                 |              |              |              |       |     |         |     | A   |     |                  |                        |     |     |     |     | 18  |     |     |     |     |     |           |
|                                       | 1  | FY 02 | A    | 22            | 0                     | 22                  |   |              |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     | 22  |     |     |     |     |     |           |
|                                       | 1  | FY 03 | A    | 23            | 0                     | 23                  |   |              |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     | 23  |     |     |     |     |     |           |
| TOTAL                                 |  |       |      | 100           | 8                     | 92                  | 1   | 1            | 1               | 1            | 1            | 1            | 1     | 1   | 1       | 1   | 1   | 1   | 1                | 1                      | 1   | 1   | 1   | 1   | 71  |     |     |     |     |     |           |
| MFR                                   | PRODUCTION RATES   |       |      |               |                       |                     | REACHED   | MFR          | ADMIN LEAD TIME |              |              | MFR          | TOTAL |     | REMARKS |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | NAME / LOCATION  |       | MIN. | 1-8-5         | MAX.                  | D +                 | Number  | Prior 1 Oct. | After 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | GENERAL DYNAMICS LAND SYSTEMS  |       | N/A* | 8             | N/A*                  |                     |   | INITIAL      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | LIMA, OH   |       |      |               |                       |                     |   | REORDER      | 8               | 1            | 18           | 19           |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |       |      |               |                       |                     |   | INITIAL      | 2               | 7            | 18           | 25           |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | REORDER      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | INITIAL      |                 | 9            | 18           | 27           |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | REORDER      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | INITIAL      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | REORDER      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | INITIAL      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |
|                                       |  |       |      |               |                       |                     |   | REORDER      |                 |              |              |              |       |     |         |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |           |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature:<br>HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) |     |     |     |     |     |     |     |     |     |     |     | Date:<br>February 1998 |     |     |     |           |     |     |     |     |     |     |     |     |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------------|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 02  |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 03         |     |     |     | L A T E R |     |     |     |     |     |     |     |     |
|                                       |     |       |      |               |                       |                     | Calendar Year 02  |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 03       |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       |     |       |      |               |                       |                     | OCT   | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT                    | NOV | DEC | JAN |           | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
| 1. Vehicle Manufacturing - Contrac    |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 96 | A    | 2             | 2                     |                     |   |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 97 | A    | 6             | 6                     |                     |   |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 98 | A    | 7             | 7                     |                     |   |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 99 | A    | 9             | 9                     |                     |   |     |     |     |     |     |     |     |     |     |     |     |                        |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 00 | A    | 13            | 5                     | 8                   | 1   | 1   | 1   |     |     |     |     |     |     |     |     |     |                        |     |     |     |           |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 01 | A    | 18            | 0                     | 18                  |   |     |     |     |     | 1   | 2   | 1   | 2   | 1   | 2   | 2   | 1                      | 2   | 1   | 1   | 2         |     |     |     |     |     |     |     |     |
|                                       | 1   | FY 02 | A    | 22            | 0                     | 22                  |   | A   |     |     |     |     |     |     |     |     |     |     |                        |     |     | 2   | 1         | 2   | 2   | 2   |     |     |     |     |     |
|                                       | 1   | FY 03 | A    | 23            | 0                     | 23                  |   |     |     |     |     |     |     |     |     |     | A   |     |                        |     |     |     |           |     | 23  |     |     |     |     |     |     |
| TOTAL                                 |     |       |      | 100           | 29                    | 71                  | 1   | 1   | 1   | 1   | 1   | 1   | 2   | 1   | 2   | 1   | 2   | 1   | 2                      | 2   | 1   | 2   | 1         | 1   | 2   | 2   | 1   | 2   | 2   | 2   | 36  |

  

| MFR | NAME / LOCATION  | PRODUCTION RATES |       |      | REACHED D+ | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|--|------------------|-------|------|------------|------------|-----------------|--------------|------------------|--------------------|---------|
|     |  | MIN.             | 1-8-5 | MAX. |            |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | GENERAL DYNAMICS LAND SYSTEMS  | N/A*             | 8     | N/A* |            |            | 8               | 1            | 18               | 19                 |         |
|     | LIMA, OH   |                  |       |      |            |            |                 |              |                  |                    |         |
|     | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |
|     |  |                  |       |      |            |            |                 |              |                  |                    |         |



| Exhibit P-40, Budget Item Justification Sheet   |             |                |                |                |                                 |   |         | Date: February 1998 |         |         |             |            |
|---|-------------|----------------|----------------|----------------|---------------------------------|---|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 3 / Spares and Repair Parts  |             |                |                |                |                                 | P-1 Item Nomenclature:<br>SPARES AND REPAIR PARTS (WTCV) (GE0150) |         |                     |         |         |             |            |
| Program Elements for Code B Items:  |             |                |                | Code:          | Other Related Program Elements: |   |         |                     |         |         |             |            |
|   | Prior Years | FY 1995        | FY 1996        | FY 1997        | FY 1998                         | FY 1999   | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Gross Cost  | 0.0         | 0.0            | 25.9           | 19.9           | 20.2                            | 23.2  | 26.4    | 27.9                | 35.3    | 37.3    | 0.0         | 216.1      |
| Less PY Adv Proc  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Plus CY Adv Proc  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Net Proc (P-1)  | 0.0         | 0.0            | 25.9           | 19.9           | 20.2                            | 23.2  | 26.4    | 27.9                | 35.3    | 37.3    | 0.0         | 216.1      |
| Initial Spares  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Total Proc Cost   | 0.0         | 0.0            | 25.9           | 19.9           | 20.2                            | 23.2  | 26.4    | 27.9                | 35.3    | 37.3    | 0.0         | 216.1      |
| Flyaway U/C   |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| Wpn Sys Proc U/C  |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| <p><b>Description:</b> Provides for procurement of spares to support initial fielding of new or modified end items.</p> <p><b>Justification:</b> The funds in this account procure depot level reparable (DLRs) secondary items from the Supply Management, Army (SMA) revolving fund (formally Army Stock Fund). To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:</p> |             |                |                |                |                                 |   |         |                     |         |         |             |            |
| <u>System</u>   |             | <u>FY 1996</u> | <u>FY 1997</u> | <u>FY 1998</u> | <u>FY 1999</u>                  |   |         |                     |         |         |             |            |
| GE0161 M1A2   |             | 17.1           | 9.2            | 13.7           | 9.8                             |   |         |                     |         |         |             |            |
| GE0163 BFVS   |             | 4.9            | 2.3            | .3             | 7.1                             |   |         |                     |         |         |             |            |
| GE0167 M109   |             | 2.4            | 6.4            | 3.6            |                                 |   |         |                     |         |         |             |            |
| GE0171 IRV  |             | 1.6            | 2.0            | .8             | 2.9                             |   |         |                     |         |         |             |            |
| GEO173 C2V  |             |                |                | .9             | 2.5                             |   |         |                     |         |         |             |            |
| GEO177 HAB  |             |                |                | .9             | .9                              |   |         |                     |         |         |             |            |
| Total   |             | 25.9           | 19.9           | 20.2           | 23.2                            |   |         |                     |         |         |             |            |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 146.2       | 0.0     | 0.0     | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0         | 150.3      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 146.2       | 0.0     | 0.0     | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0         | 150.3      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 146.2       | 0.0     | 0.0     | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0         | 150.3      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Armored Vehicle Launched Bridge (AVLB) is the current authorized standard assault bridge supporting heavy forces. AVLBs are primarily assigned to Combat Engineering training and War Reserve sites.

**JUSTIFICATION:** In order to fully modify the fleet, 35 vehicles, 20% of the Active Component and high priority War Reserve units need modifications. The Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) will improve the reliability and extend engine life. The other two modifications, the AN/VVS-2 Driver's Night Viewer (DNV) and Smoke Grenade Launcher will improve the tactical maneuvering and operations capability of the AVLB. The DNV will improve the night vision capability of the vehicle driver; the Smoke Grenade Launcher allows the AVLB to advance, deploy, and retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable.

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

Appropriation / Budget Activity/Serial No.  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles

P-1 Item Nomenclature  
ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000)

Program Elements for Code B Items

Code

Other Related Program Elements

| Description    |                 | Fiscal Years |         |         |         |         |         |         |         |     |       |
|----------------|-----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO.       | Classification  | FY 1996      | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | TC  | Total |
| AVLB Block MOD |                 |              |         |         |         |         |         |         |         |     |       |
| 1-97-05-4531   | Oper Capability | 0.0          | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0 | 4.0   |
| Totals         |                 | 0.0          | 0.0     | 0.0     | 1.0     | 1.3     | 1.7     | 0.0     | 0.0     | 0.0 | 4.0   |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |
|                |                 |              |         |         |         |         |         |         |         |     |       |

| INDIVIDUAL MODIFICATION  |  |                   |   |   |   |                          |   |   |   | Date                          |   | February 1998 |   |                      |                     |   |   |                |   |        |    |
|--|--|-------------------|---|---|---|--------------------------|---|---|---|-------------------------------|---|---------------|---|----------------------|---------------------|---|---|----------------|---|--------|----|
| MODIFICATION TITLE: AVLB Block MOD 1-97-05-4531  |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| MODELS OF SYSTEMS AFFECTED: M60A1/M48A5 AVLB   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| DESCRIPTION / JUSTIFICATION:<br><br>In order to fully modify the fleet, 35 vehicles, 20% of the Active Component and high priority War Reserve units need modifications. The Armored Top Loading Air Cleaner and Air Induction System Improvements (Clean Air) will improve the reliability and extend engine life. other two modifications, the AN/VVS-2 Driver's Night Viewer (DNV) and Smoke Grenade Launcher will improve the tactical maneuvering and operations capability of the AVLB. The DNV will improve the night vision capability of the vehicle driver; the Smoke Grenade Launcher allows the AVLB to advance, deploy, and retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable. |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| TDP Review   |  |                   |   |   |   |                          |   |   |   | <u>PLANNED</u><br>February 98 |   |               |   |                      | <u>ACCOMPLISHED</u> |   |   |                |   |        |    |
| Installation Schedule:   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
|  |  | FY 1997           |   |   |   | FY 1998                  |   |   |   | FY 1999                       |   |               |   | FY 2000              |                     |   |   | FY 2001        |   |        |    |
|  |  | Pr Yr             |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        |    |
| <b>Totals</b>  |  | 1                 | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                             | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 | 1              | 2 | 3      | 4  |
| <b>Inputs</b>  |  |                   |   |   |   |                          |   |   |   |                               |   |               |   | 2                    | 2                   | 2 | 5 | 5              | 5 | 5      | 9  |
| <b>Outputs</b>   |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      | 2                   | 2 | 2 | 5              | 5 | 5      | 5  |
|  |  | FY 2002           |   |   |   | FY 2003                  |   |   |   | FY 2004                       |   |               |   | FY 2005              |                     |   |   | To<br>Complete |   | Totals |    |
|  |  | 1                 | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1                             | 2 | 3             | 4 | 1                    | 2                   | 3 | 4 |                |   |        |    |
| <b>Inputs</b>  |  |                   |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        | 35 |
| <b>Outputs</b>   |  | 9                 |   |   |   |                          |   |   |   |                               |   |               |   |                      |                     |   |   |                |   |        | 35 |
| METHOD OF IMPLEMENTATION:  |  | Depot/Depot Teams |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 3 Months                      |   |               |   | PRODUCTION LEADTIME: |                     |   |   | 6 Months       |   |        |    |
| Contract Dates:  |  | FY 1997           |   |   |   | FY 1998                  |   |   |   | FY 1999                       |   |               |   | June 99              |                     |   |   |                |   |        |    |
| Delivery Date:   |  | FY 1997           |   |   |   | FY 1998                  |   |   |   | FY 1999                       |   |               |   | October 99           |                     |   |   |                |   |        |    |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): AVLB Block MOD 1-97-05-4531

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |    |     |
|---|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|-----|
|   | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$ |     |
| RDT&E                                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| PROCUREMENT                               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Kit Quantity                              |                   |    |         |    |         |    | 6       |     | 20      |     | 9       |     |         |    |         |    |     |    |       | 35 |     |
| Installation Kits                         |                   |    |         |    |         |    |         | 0.3 |         | 0.9 |         | 0.5 |         |    |         |    |     |    |       |    | 1.7 |
| Installation Kits, Nonrecurring Equipment |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Equipment, Nonrecurring                   |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Engineering Change Orders                 |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Data                                      |                   |    |         |    |         |    |         | 0.7 |         | 0.1 |         | 0.2 |         |    |         |    |     |    |       |    | 1.0 |
| Training Equipment                        |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Support Equipment                         |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Other                                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Interim Contractor Support                |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Installation of Hardware                  |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1996 & Prior Eqpt -- Kits              |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1997 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1998 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 1999 Eqpt -- Kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| FY 2000 Eqpt -- kits                      |                   |    |         |    |         |    |         |     | 6       | 0.2 |         |     |         |    |         |    |     |    |       | 6  | 0.2 |
| FY 2001 Eqpt -- kits                      |                   |    |         |    |         |    |         |     | 5       | 0.1 | 15      | 0.6 |         |    |         |    |     |    |       | 20 | 0.7 |
| FY 2002 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     | 9       | 0.4 |         |    |         |    |     |    |       | 9  | 0.4 |
| FY 2003 Eqpt -- kits                      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| TC Equip-Kits                             |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |     |    |       |    |     |
| Total Installment                         |                   |    |         |    |         |    |         |     | 11      | 0.3 | 24      | 1.0 |         |    |         |    |     |    |       | 35 | 1.3 |
| Total Procurement Cos                     |                   |    |         |    |         |    |         | 1.0 |         | 1.3 |         | 1.7 |         |    |         |    |     |    |       |    | 4.0 |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 48002       | 8705    | 9430    | 3802    | 406     | 1525    |         |         |         |         |             | 71870      |
| Gross Cost       | 117.2       | 21.1    | 27.5    | 12.1    | 5.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 187.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 117.2       | 21.1    | 27.5    | 12.1    | 5.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 187.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 117.2       | 21.1    | 27.5    | 12.1    | 5.5     | 4.5     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 187.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Squad Automatic Weapon (SAW) is a lightweight (22 pounds with 200 rounds of ammunition), 5.56mm, one-man operated weapon capable of delivering a sustained volume of automatic, accurate, and lethal fire at ranges of up to 800 meters. The Army configuration was changed Oct 89 to include a spare barrel, additional heat shield and barrel bag.

**JUSTIFICATION:** The sustained fire capability and increased range are urgently needed throughout infantry rifle squads in order to enhance their survivability. This lightweight, highly mobile machine gun will be used by infantry, light infantry, airborne infantry, mechanized infantry and elements of the air cavalry units, as well as non-infantry units. This procurement profile will equip selected elements of the above mentioned units on a priority basis.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |   | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>MACHINE GUN, 5.56MM (SAW) (G12900) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|---|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |   | ID  | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |   | CD  | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |   |   | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Hardware                                       | A |   | 24817        | 9430 | 3   | 10006        | 3802 | 3                   | 1068         | 406  | 3                      | 4185         | 1525 | 3        |
| 2. GFM  |   |   | 626          |      |   | 186          |      |                     | 8            |      |                        |              |      |          |
| 3. Engineering Support<br>- In House Support      |   |   | 134          |      |   | 145          |      |                     | 341          |      |                        | 78           |      |          |
| 4. Quality Assurance (ARDEC)                      |   |   |              |      |   | 65           |      |                     | 89           |      |                        | 21           |      |          |
| 5. Testing (TECOM)                                |   |   | 115          |      |   | 101          |      |                     | 100          |      |                        | 60           |      |          |
| 6. Engineering Change Proposal (ECP's)            |   |   |              |      |   | 162          |      |                     | 2200         |      |                        | 10           |      |          |
| 7. ILS  |   |   | 65           |      |   | 65           |      |                     | 60           |      |                        | 40           |      |          |
| 8. Fielding                                       |   |   | 1661         |      |   | 1086         |      |                     | 1539         |      |                        | 100          |      |          |
| 9. TDP Maintenance                                |   |   | 58           |      |   | 50           |      |                     | 50           |      |                        |              |      |          |
| 10. Storage                                       |   |   |              |      |   | 35           |      |                     |              |      |                        |              |      |          |
| 11. Refurbishment                                 |   |   | 9            |      |   |              |      |                     |              |      |                        |              |      |          |
| 12. Engr Study                                    |   |   |              |      |   | 149          |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |   |   | <b>27485</b> |      |   | <b>12050</b> |      |                     | <b>5455</b>  |      |                        | <b>4494</b>  |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
February 1998

Appropriation / Budget Activity/Serial No:  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and  
Other Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature:  
MACHINE GUN, 5.56MM (SAW) (G12900)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--------------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Hardware<br>FY 96               | FN Mfg. Co., Inc., Columbia SC | SS/FFP<br>M-3(1)         | ACALA           | Aug-96     | Jan-97                 | 9430     | 3               | Yes              | No               |                |
| FY 97                              | FN Mfg. Co., Inc., Columbia SC | SS/FFP<br>M-3(2)         | ACALA           | Dec-96     | Sep-98                 | 3802     | 3               | Yes              | No               |                |
| FY 98                              | FN Mfg. Co., Inc., Columbia SC | SS/FFP<br>M-3(3)         | ACALA           | Dec-98     | Jun-99                 | 406      | 3               | Yes              | No               |                |
| FY 99                              | FN Mfg. Co., Inc., Columbia SC | SS/FFP                   | ACALA           | Jan-99     | Jul-99                 | 1525     | 3               | Yes              | No               |                |

REMARKS:

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |                |               |                       |                     | P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900) |              |     |     |                  |                    |         |  |     |     |     |     |     |     | Date: February 1998 |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|---------------------------------------|--|-------|----------------|---------------|-----------------------|---------------------|---|--------------|-----|-----|------------------|--------------------|---------|--|-----|-----|-----|-----|-----|-----|---------------------|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----|
| COST ELEMENTS                         | MFR  | FY    | SERV           | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96  |              |     |     |                  |                    |         |  |     |     |     |     |     |     | Fiscal Year 97      |     |     |     | L A T E R |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | Calendar Year 96  |              |     |     |                  |                    |         |  |     |     |     |     |     |     | Calendar Year 97    |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | OCT   | NOV          | DEC | JAN | FEB              | MAR                | APR     | MAY  | JUN | JUL | AUG | SEP | OCT | NOV | DEC                 | JAN | FEB | MAR |           | APR | MAY | JUN | JUL | AUG | SEP |     |     |     |     |     |     |             |     |
| Hardware                              | 1  | 95&Pr | A              | 47.6          | 35.2                  | 12.4                | 0.8   | 0.8          | 0.8 | 0.8 | 0.8              | 0.8                | 0.8     | 0.8  | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.4 |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             | 0.0 |
|                                       | 2  | 95&Pr | A              | 9.1           | 9.1                   |                     |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       | 1  | 95&Pr | MC             | 2.5           | 2.5                   |                     |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       | 1  | 95&Pr | AF             | 2.5           | 2.5                   |                     |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       | 1  | 95&Pr | SDAF           | 0.5           | 0.5                   |                     |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       | 1  | 95&Pr | FMS            | 0.2           | 0.2                   |                     |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       | 1  | FY 96 | A              | 9.4           |                       | 9.4                 |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     | A                   |     |     |     |           |     | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 5.4 |             |     |
|                                       | 1  | FY 97 | A              | 3.8           |                       | 3.8                 |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     | 3.8 |             |     |
|                                       | 1  | FY98  | A              | 0.4           |                       | 0.4                 |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     | 0.4 |             |     |
|                                       | 1  | FY99  | A              | 1.5           |                       | 1.5                 |   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     | 1.5 |             |     |
| <b>Total</b>                          |  |       |                | <b>77.5</b>   | <b>50.0</b>           | <b>27.5</b>         | 0.8   | 0.8          | 0.8 | 0.8 | 0.8              | 0.8                | 0.8     | 0.8  | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9                 | 0.5 | 0.5 | 0.5 | 0.5       | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | <b>11.1</b> |     |
|                                       |  |       |                |               |                       |                     | OCT   | NOV          | DEC | JAN | FEB              | MAR                | APR     | MAY  | JUN | JUL | AUG | SEP | OCT | NOV | DEC                 | JAN | FEB | MAR | APR       | MAY | JUN | JUL | AUG | SEP |     |     |     |     |     |     |     |             |     |
| MFR                                   | PRODUCTION RATES                             |       |                |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME   |              |     |     | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       | NAME / LOCATION                              | MIN.  | 1-8-5          | MAX.          |                       |                     | Prior 1 Oct.  | After 1 Oct. |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
| 1                                     | FN Mfg Co. Inc. Columbia S.C.                | 0.4   | 1.2            | 2.4           | 18                    | 1                   | INITIAL   |              |     | 7   | 10               | 6                  | 16      | FY 96 Funded Delivery Schedule and FY 97 MFR leadtime extended to maintain minimum production rates. |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | REORDER   |              |     | 7   | 2                | 22                 | 24      |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
| 2                                     | Fabrique Nationale Nouveau, Herstal, Belgium |       | (one time buy) |               |                       |                     | INITIAL   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | REORDER   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | INITIAL   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | REORDER   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | INITIAL   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |
|                                       |  |       |                |               |                       |                     | REORDER   |              |     |     |                  |                    |         |  |     |     |     |     |     |     |                     |     |     |     |           |     |     |     |     |     |     |     |     |     |     |     |     |             |     |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |                  |                     |                                | P-1 Item Nomenclature:<br>MACHINE GUN, 5.56MM (SAW) (G12900) |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             | Date:<br>February 1998 |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|---------------------------------------|--|-------|------------------|---------------------|--------------------------------|--|------------------|--------------|---------------------|-----------------------|-------------|--|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|-----------------------|-------------|-------------|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|------------|-----|
| COST ELEMENTS                         | M<br>F<br>R                                  | FY    | S<br>E<br>R<br>V | PROC<br>QTY<br>Each | ACCEP.<br>PRIOR<br>TO<br>1 OCT | BAL<br>DUE<br>AS OF<br>1 OCT                                 | Fiscal Year 98   |              |                     |                       |             |  |             |             |             |             | Fiscal Year 99   |             |             |             |             |             |             |             |             |                        | L<br>A<br>T<br>E<br>R |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | Calendar Year 98 |              |                     |                       |             |  |             |             |             |             | Calendar Year 99 |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | O<br>C<br>T      | N<br>O<br>V  | D<br>E<br>C         | J<br>A<br>N           | F<br>E<br>B | M<br>A<br>R  | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G      | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y            |                       | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |     |     |     |     |     |     |     |            |     |
| Hardware                              | 1  | 95&Pr | A                | 47.6                | 47.6                           |  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | 2  | 95&Pr | A                | 9.1                 | 9.1                            |  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | 1  | 95&Pr | MC               | 2.5                 | 2.5                            |  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | 1  | 95&Pr | AF               | 2.5                 | 2.5                            |  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | 1  | 95&Pr | SDAF             | 0.5                 | 0.5                            |  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | 1  | 95&Pr | FMS              | 0.2                 | 0.2                            |  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | 1  | FY 96 | A                | 9.4                 | 4.1                            | 5.4  | 0.5              | 0.5          | 0.5                 | 0.5                   | 0.5         | 0.5  | 0.5         | 0.5         | 0.5         | 0.5         | 0.5              | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5                    | 0.5                   | 0.5         | 0.5         | 0.5         | 0.5         | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.0        |     |
|                                       | 1  | FY 97 | A                | 3.8                 |                                | 3.8  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             | 0.0         | 0.5         | 0.5         | 0.5         | 0.5                    | 0.5                   | 0.5         | 0.5         | 0.5         | 0.5         | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.2 |     | 0.0        |     |
|                                       | 1  | FY98  | A                | 0.4                 |                                | 0.4  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     | 0.3 | 0.1 |            |     |
|                                       | 1  | FY99  | A                | 1.5                 |                                | 1.5  |                  |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     | 0.3 | 0.5 | 0.5        | 0.3 |
| <b>Total</b>                          |  |       |                  | <b>77.5</b>         | <b>66.5</b>                    | <b>11.1</b>  | 0.5              | 0.5          | 0.5                 | 0.5                   | 0.5         | 0.5  | 0.5         | 0.5         | 0.5         | 0.5         | 0.5              | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5         | 0.5                    | 0.5                   | 0.5         | 0.5         | 0.5         | 0.5         | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | <b>0.3</b> |     |
|                                       |  |       |                  |                     |                                |  | O<br>C<br>T      | N<br>O<br>V  | D<br>E<br>C         | J<br>A<br>N           | F<br>E<br>B | M<br>A<br>R  | A<br>P<br>R | M<br>A<br>Y | J<br>U<br>N | J<br>U<br>L | A<br>U<br>G      | S<br>E<br>P | O<br>C<br>T | N<br>O<br>V | D<br>E<br>C | J<br>A<br>N | F<br>E<br>B | M<br>A<br>R | A<br>P<br>R | M<br>A<br>Y            | J<br>U<br>N           | J<br>U<br>L | A<br>U<br>G | S<br>E<br>P |             |     |     |     |     |     |     |     |            |     |
| M<br>F<br>R                           | PRODUCTION RATES                             |       |                  |                     | REACHED<br>D+                  | MFR<br>Number  | ADMIN LEAD TIME  |              | MFR<br>After 1 Oct. | TOTAL<br>After 1 Oct. | REMARKS     |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       | NAME / LOCATION                              | MIN.  | 1-8-5            | MAX.                |                                |  | Prior 1 Oct.     | After 1 Oct. |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
| 1                                     | FN Mfg Co. Inc. Columbia S.C.                |       |                  |                     | 18                             | 1  | INITIAL          | 7            | 10                  | 6                     | 16          | FY 96 Funded Delivery Schedule and FY 97 MFR leadtime extended to maintain minimum production rates. |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
| 2                                     | Fabrique Nationale Nouveau, Herstal, Belgium |       |                  |                     |                                |  | REORDER          | 7            | 2                   | 22                    | 24          |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | INITIAL          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | REORDER          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | INITIAL          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | REORDER          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | INITIAL          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | REORDER          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | INITIAL          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |
|                                       |  |       |                  |                     |                                |  | REORDER          |              |                     |                       |             |  |             |             |             |             |                  |             |             |             |             |             |             |             |             |                        |                       |             |             |             |             |     |     |     |     |     |     |     |            |     |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |  |       |         |               |                       |                     | P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900) |             |            |                 |              |              |              |  |       |       |       |       |                  |       | Date: February 1998 |       |       |       |       |       |       |       |       |       |           |
|---------------------------------------|--|-------|---------|---------------|-----------------------|---------------------|---|-------------|------------|-----------------|--------------|--------------|--------------|--|-------|-------|-------|-------|------------------|-------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|
| COST ELEMENTS                         | M F R  | FY    | S E R V | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00  |             |            |                 |              |              |              |  |       |       |       |       | Fiscal Year 01   |       |                     |       |       |       |       |       |       |       |       |       | L A T E R |
|                                       |  |       |         |               |                       |                     | Calendar Year 00  |             |            |                 |              |              |              |  |       |       |       |       | Calendar Year 01 |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     | O C T   | N O V       | D E C      | J A N           | F E B        | M A R        | A P R        | M A Y  | J U N | J U L | A U G | S E P | O C T            | N O V | D E C               | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |           |
| Hardware                              | 1  | 95&Pr | A       | 47.6          | 47.6                  |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 2  | 95&Pr | A       | 9.1           | 9.1                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | 95&Pr | MC      | 2.5           | 2.5                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | 95&Pr | AF      | 2.5           | 2.5                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | 95&Pr | SDAF    | 0.5           | 0.5                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | 95&Pr | FMS     | 0.2           | 0.2                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | FY 96 | A       | 9.4           | 9.4                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | FY 97 | A       | 3.8           | 3.8                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | FY98  | A       | 0.4           | 0.4                   |                     |   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       | 1  | FY99  | A       | 1.5           | 1.2                   | 0.3                 | 0.3   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       | 0.0   |       |       |       |           |
| Total                                 |  |       |         | 77.5          | 77.2                  | 0.3                 | 0.3   |             |            |                 |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       | 0.0   |       |       |       |           |
|                                       |  |       |         |               |                       |                     | O C T   | N O V       | D E C      | J A N           | F E B        | M A R        | A P R        | M A Y  | J U N | J U L | A U G | S E P | O C T            | N O V | D E C               | J A N | F E B | M A R | A P R | M A Y | J U N | J U L | A U G | S E P |           |
| M F R                                 | NAME / LOCATION                              |       |         |               | PRODUCTION RATES      |                     |   | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR          | TOTAL        | REMARKS  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               | MIN.                  | 1-8-5               | MAX.  |             |            | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. | FY 96 Funded Delivery Schedule and FY 97 MFR leadtime extended to maintain minimum production rates. |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
| 1                                     | FN Mfg Co. Inc. Columbia S.C.                |       |         |               | 0.4                   | 1.2                 | 2.4   | 18          | 1          | INITIAL         | 7            | 10           | 6            | 16   |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
| 2                                     | Fabrique Nationale Nouveau, Herstal, Belgium |       |         |               | (one time buy)        |                     |   |             |            | REORDER         | 7            | 2            | 22           | 24   |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | INITIAL         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | REORDER         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | INITIAL         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | REORDER         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | INITIAL         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | REORDER         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | INITIAL         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |
|                                       |  |       |         |               |                       |                     |   |             |            | REORDER         |              |              |              |  |       |       |       |       |                  |       |                     |       |       |       |       |       |       |       |       |       |           |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 1430.0      | 14.4    | 5.3     | 9.3     | 8.8     | 8.9     | 9.1     | 9.5     | 10.2    | 10.2    | 0.0         | 1515.6     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 1430.0      | 14.4    | 5.3     | 9.3     | 8.8     | 8.9     | 9.1     | 9.5     | 10.2    | 10.2    | 0.0         | 1515.6     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 1430.0      | 14.4    | 5.3     | 9.3     | 8.8     | 8.9     | 9.1     | 9.5     | 10.2    | 10.2    | 0.0         | 1515.6     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: This program provides for Provision of Industrial Facilities (PIF). Funds are used to establish, modernize, expand or replace facilities owned by the Army. It provides Production Support Equipment Replacement (PSR) and Modernization (MOD) to Government owned equipment, real property used in production and production testing of Weapons and Tracked Combat Vehicles. This program also provides funding for the Layaway of Industrial Facilities (LIF) for preservation of equipment and Environmental (Env) restoration for the portions of plants which are no longer required for active production.

JUSTIFICATION: The FY99 request supports PSR to Government owned equipment at Lima Army Tank Plant. Included are a waste water discharge monitoring and separation system, repaving of roadways, roof/downspouts, and design/installation of a point source air ventilation system. Also, funding will be used to replace and rehabilitate unscheduled/unplanned emergency repairs of Government owned production machinery, equipment and facility items currently in use at the contractor plant in Muskegon, MI. and Scranton, Pa.

|       | FY 1996      | FY 1997 | FY 1998 | FY 1999 |
|-------|--------------|---------|---------|---------|
| PIF   | 3.443        | 8.926   | 8.401   | 8.511   |
| LIF   | 0.432        | 0.360   | 0.357   | 0.350   |
| ENV   | <u>1.448</u> |         |         |         |
| TOTAL | 5.323        | 9.286   | 8.758   | 8.861   |

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b>   |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |      | P-1 Line Item Nomenclature:<br>PRODUCTION BASE SUPPORT (TCV-WTCV)<br>(GA0050) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>   |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 49X3002 Omnibus Design<br>Provided for design of construction/equip<br>projects in support of Tank production.  |  |  | \$0.394      |      |   |              |      |                     |              |      |                        |              |      |          |
| 49X4281 LIF, Layaway/Redistribution<br>Various Government & Contractor Facilities<br>Provides for plant clearance and restoration<br>of those areas no longer required for active<br>production. Packing, crating, handling &<br>transportation GFE retained for future prod. |  |  | \$0.432      |      |   | \$0.360      |      |                     | \$0.357      |      |                        | \$0.350      |      |          |
| 49X6037 PSR, LIMA Army Tank Plant (LATP)<br>Provides non-routine maintenance of real<br>property facilities, I.P.E. purchase & rehab.<br>of production equipment  |  |  | \$2.299      |      |   | \$4.427      |      |                     | \$5.626      |      |                        | \$4.000      |      |          |
| 49X6040 PSR, Scranton/Muskegon Facilities<br>Provides replacement/rehab of Government<br>owned equipment at contractor plants.  |  |  | \$0.750      |      |   | \$4.499      |      |                     | \$2.775      |      |                        | \$3.711      |      |          |
| 49X6042 PSR, LIMA Army Tank Plant (LATP)<br>Provides elimination of buildings/restoring<br>sites to ensure comp w/Pollution Prevention<br>Executive Order 12856.  |  |  |              |      |   |              |      |                     |              |      |                        | \$0.304      |      |          |
| 49X6047 PSR, LIMA Army Tank Plant (LATP)<br>Provides compliance with Ohio Dept. of<br>Trans. resurfacing cycle-asphaltic/concrete   |  |  |              |      |   |              |      |                     |              |      |                        | \$0.218      |      |          |
| 49X6048 PSR, LIMA Army Tank Plant (LATP)<br>Provides for roof/downspout replacement   |  |  |              |      |   |              |      |                     |              |      |                        | \$0.278      |      |          |
| 19X8173 ENV, Stratford Army Engine Plant<br>Provided for correction of OSHA/EPA deficien-<br>cies/minimum facility project in support of<br>the aircraft and tank production.   |  |  | \$1.448      |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>  |  |  | \$5.323      |      |   | \$9.286      |      |                     | \$8.758      |      |                        | \$8.861      |      |          |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 9666        | 2100    | 1637    | 2150    | 400     | 697     | 1026    | 649     | 727     | 1255    |             | 20307      |
| Gross Cost       | 147.6       | 34.0    | 32.8    | 33.0    | 7.8     | 12.2    | 18.5    | 13.8    | 15.5    | 25.4    | 0.0         | 340.6      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 147.6       | 34.0    | 32.8    | 33.0    | 7.8     | 12.2    | 18.5    | 13.8    | 15.5    | 25.4    | 0.0         | 340.6      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 147.6       | 34.0    | 32.8    | 33.0    | 7.8     | 12.2    | 18.5    | 13.8    | 15.5    | 25.4    | 0.0         | 340.6      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The MK19, Mod 3 is a self-powered, air-cooled, blowback, 40mm automatic grenade launcher capable of a cyclic rate of 325-375 rounds per minute. It will engage point targets up to 1,500 meters and provide suppressive fire up to 2,200 meters. Component items for this system include the 40mm assembly group 1 and the MK64 mount.

**JUSTIFICATION:** The weapon will be mounted on the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV), the Armored Personnel Carrier family of vehicles and the M88A1 Recovery Vehicle. During static defensive operations, it will be ground employed utilizing the M3 Tripod Mount. It will replace select M2 cal .50 and M60 7.62mm machine guns in mechanized, light infantry, engineer, military police, and other combat support and combat service support units. Procurement will help reduce critical supply position for high-priority equipment readiness code (ERC) A shortages in Europe, Korea, and CONUS requirements. The MK175 Pedestal Mount is being incorporated on the MK64 Mount to improve the accuracy and dispersion of the MK19-3 when used on the HMMWV application.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |              |      | P-1 Line Item Nomenclature:<br>GRENADE LAUNCHER, AUTO, 40MM, MK19-<br>3 (G13400) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|---|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID  | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD  | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |   | \$000        | Each | \$000  | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Hardware                                       |  | A   | 20237        | 1500 | 13   | 4433         | 320  | 14                  | 6091         | 400  | 15                     | 10609        | 697  | 15       |
|   |  |   | 2039         | 137  | 15   | 20876        | 1423 | 15                  |              |      |                        |              |      |          |
|   |  |   |              |      |  | 4065         | 268  | 15                  |              |      |                        |              |      |          |
|   |  |   |              |      |  | 2107         | 139  | 15                  |              |      |                        |              |      |          |
| 2. Round Removal Tool (GFM)                       |  |   | 187          |      |  | 209          |      |                     | 43           |      |                        | 85           |      |          |
| 3. Engineering Support<br>- In House              |  |   | 793          |      |  | 660          |      |                     | 1032         |      |                        | 989          |      |          |
| 4. Quality Assurance (ARDEC)                      |  |   | 45           |      |  | 30           |      |                     | 64           |      |                        | 65           |      |          |
| 5. Integrated Logistic Support                    |  |   | 314          |      |  | 15           |      |                     | 127          |      |                        | 125          |      |          |
| 6. Engineering Change Proposal                    |  |   | 103          |      |  | 332          |      |                     | 38           |      |                        | 125          |      |          |
| 7. Testing (TECOM)                                |  |   |              |      |  |              |      |                     | 266          |      |                        |              |      |          |
| 8. Fielding                                       |  |   | 406          |      |  | 245          |      |                     | 174          |      |                        | 183          |      |          |
| 9. M175 Material Change<br>(Application Costs)    |  |   |              |      |  |              |      |                     |              |      |                        | 10           |      |          |
| 10. MK19 Claim                                    |  |   | 8688         |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |   | <b>32812</b> |      |  | <b>32972</b> |      |                     | <b>7835</b>  |      |                        | <b>12191</b> |      |          |

| Exhibit P-5a, Budget Procurement History and Planning   |                           |                          |                 |            |                        |          |                 |  |                  | Date:          |  |
|---|---------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and<br>Other Combat Vehicles |                           |                          |                 |            | Weapon System Type:    |          |                 | P-1 Line Item Nomenclature:<br>GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location   | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| Hardware  |                           |                          |                 |            |                        |          |                 |  |                  |                |  |
| FY 96   | SACO Defense, Saco, Maine | SS/FFP M-2(1)            | ACALA           | Jul-96     | May-97                 | 1500     | 13              | Yes  | No               |                |  |
|   | SACO Defense, Saco, Maine | Option                   | ACALA           | Apr-97     | Jul-98                 | 137      | 15              | Yes  | No               |                |  |
| FY 97   | SACO Defense, Saco, Maine | SS/FFP M-2(2)            | ACALA           | Nov-96     | May-98                 | 320      | 14              | Yes  | No               |                |  |
|   | SACO Defense, Saco, Maine | Option                   | ACALA           | Apr-97     | Sep-98                 | 1423     | 15              | Yes  | No               |                |  |
|   | SACO Defense, Saco, Maine | SS/FFP M-3(1)            | ACALA           | Sep-97     | Oct-99                 | 268      | 15              | Yes  | No               |                |  |
|   | SACO Defense, Saco, Maine | Option                   | ACALA           | Jun-98     | Jan-00                 | 139      | 15              | Yes  | No               |                |  |
| FY 98   | SACO Defense, Saco, Maine | Option                   | ACALA           | Jun-98     | Feb-00                 | 400      | 15              | Yes  | No               |                |  |
| FY 99   | SACO Defense, Saco, Maine | SS/FFP M-3(2)            | ACALA           | Dec-98     | Jun-00                 | 697      | 15              | Yes  | No               |                |  |
| REMARKS:  |                           |                          |                 |            |                        |          |                 |  |                  |                |  |







**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: M1 ABRAMS TANK (MOD) (GA0700)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 447.6       | 35.0    | 50.1    | 62.9    | 29.2    | 53.3    | 30.4    | 62.5    | 97.1    | 119.9   | 1348.9      | 2336.9     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 447.6       | 35.0    | 50.1    | 62.9    | 29.2    | 53.3    | 30.4    | 62.5    | 97.1    | 119.9   | 1348.9      | 2336.9     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 447.6       | 35.0    | 50.1    | 62.9    | 29.2    | 53.3    | 30.4    | 62.5    | 97.1    | 119.9   | 1348.9      | 2336.9     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** This budget line provides for the procurement and installation of modification kits for the Abrams series tank to improve Lethality, Survivability, Safety and Operational Capabilities. Tank Lethality is being improved by the Armament Enhancement Initiative (AEI) and the Embedded Battle Command (EBC). Tank Survivability and Safety improvements include Live Fire Category A (Manual Blaster, Driver's / Loader's Hatch Ballistic Rims, Turret Cable Ballistic Protection and Driver's Hatch Latch); Live Fire Category B (Ammo Door Latch Mechanism, Smoke Generator Fuel Line, NBC Fire Warning System (NBCFW), new Hand - Held Fire Extinguishers (HHFE), Improved Gunner's Station (IGS); Battlefield Override (BF/OR), Driver's Viewer Quick Release (DVQR); System Enhancement Package (SEP); and Driver's Hatch Interlock (DHI). Tank Operational improvements include the Precision Lightweight GPS Receiver (PLGR); Pulse - Jet System (PJS); Vehicle Intercommunications System (VIS); External Auxiliary Power Unit (EAPU); M1A2 Field Upgrades, the M1A1-D program and the Mounted Water Ration Heater (MWRH). Finally, there is the Presidentially directed HALON Replacement program (Ozone Depleting Chemical Replacement). These P-Forms also reflect the alignment of most MODS into BLOCKS in order to realize reduced installation costs from concurrent application.

**JUSTIFICATION:** The priorities noted here in are consistent with USA Armor School requirements and are structured to meet needs validated by Tank users in training and testing as well as in actions such as Operation Desert Storm (ODS). Degradation of tank warfighting capability and survivability, increased incidents of vehicle damage and crew injuries will occur if these modifications are delayed or deleted.

| Exhibit P-40M Budget Item Justification Sheet  |                     |              |         |         |                                |         |         | Date   |         |       |       |  |
|--|---------------------|--------------|---------|---------|--------------------------------|---------|---------|--|---------|-------|-------|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                     |              |         |         |                                |         |         | P-1 Item Nomenclature<br>M1 ABRAMS TANK (MOD) (GA0700) |         |       |       |  |
| Program Elements for Code B Items  |                     |              | Code    |         | Other Related Program Elements |         |         |  |         |       |       |  |
| Description  |                     | Fiscal Years |         |         |                                |         |         |  |         |       |       |  |
| OSIP NO.   | Classification      | FY 1996      | FY 1997 | FY 1998 | FY 1999                        | FY 2000 | FY 2001 | FY 2002  | FY 2003 | TC    | Total |  |
| Halon Replacement (HAR) [MOD 1]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4411   | Environmental       | 7.4          | 1.5     | 2.0     | 5.3                            | 6.5     | 6.6     | 6.8  | 5.7     | 5.6   | 47.4  |  |
| Driver's Hatch Interlock (DHI) [Mod 2]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-97-05-4520   | Safety              | 0.0          | 20.4    | 6.5     | 5.8                            | 4.9     | 0.0     | 0.0  | 0.0     | 39.8  | 77.4  |  |
| Vehicle Intercommunications System (VIS) [MOD 3]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4412   | Legislative Compl.  | 27.0         | 6.6     | 6.0     | 5.3                            | 0.7     | 0.0     | 0.0  | 0.0     | 4.5   | 50.1  |  |
| Armament Enhancement Initiative (AEI) [MOD 4]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-89-05-4226   | Operational         | 60.1         | 0.4     | 0.0     | 0.0                            | 0.0     | 0.0     | 0.0  | 0.0     | 0.0   | 60.5  |  |
| Precision Lightweight GPS Receiver (PLGR) [MOD 5]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4417   | Manprint            | 0.4          | 0.0     | 0.5     | 0.6                            | 0.6     | 0.6     | 0.6  | 0.6     | 13.4  | 17.3  |  |
| Live Fire Category A (LFCA) [MOD 6]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-89-05-4230   | Deficiency Correct. | 14.5         | 5.3     | 3.5     | 3.5                            | 3.5     | 3.3     | 2.9  | 2.5     | 0.3   | 39.3  |  |
| Battlefield Override (BF/OR) [MOD 7]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-89-05-4229   | Operational         | 13.7         | 2.7     | 2.1     | 4.2                            | 1.1     | 0.8     | 0.6  | 0.3     | 0.0   | 25.5  |  |
| Live Fire Category B (LFCB) [MOD 8]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-94-05-4481   | Deficiency Correct. | 2.4          | 1.8     | 0.8     | 0.8                            | 0.8     | 0.7     | 0.7  | 0.6     | 0.0   | 8.6   |  |
| Driver's Viewer Quick Release (DVQR) [MOD 9]   |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4427   | Safety              | 0.3          | 0.2     | 0.3     | 0.3                            | 0.2     | 0.0     | 0.0  | 0.0     | 0.0   | 1.3   |  |
| Pulse - Jet System (PJS) [MOD 10]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4475   | Operational         | 29.0         | 6.7     | 3.5     | 2.4                            | 1.5     | 0.0     | 0.0  | 0.0     | 296.9 | 340.0 |  |
| Mounted Water Ration Heater (MWRH) [MOD 11]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-92-05-4426   | Manprint            | 1.9          | 0.1     | 0.1     | 0.0                            | 0.0     | 0.0     | 0.0  | 0.0     | 0.0   | 2.1   |  |
| System Enhancement Package (SEP) [MOD 12]  |                     |              |         |         |                                |         |         |  |         |       |       |  |
| 1-96-05-4505   | Operational         | 0.0          | 0.0     | 0.0     | 0.0                            | 2.9     | 46.5    | 82.8   | 107.4   | 655.5 | 895.1 |  |



| Exhibit P-40M Budget Item Justification Sheet                      |                       |       |      |                                |      |      |      | Date                          |       |         |         |
|--|-----------------------|-------|------|--------------------------------|------|------|------|-------------------------------|-------|---------|---------|
| Appropriation / Budget Activity/Serial No.                         |                       |       |      |                                |      |      |      | P-1 Item Nomenclature         |       |         |         |
| PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                       |       |      |                                |      |      |      | M1 ABRAMS TANK (MOD) (GA0700) |       |         |         |
| Program Elements for Code B Items                                  |                       |       | Code | Other Related Program Elements |      |      |      |                               |       |         |         |
| Embedded Battle Command (EBC) [MOD 13]                             |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-96-05-4516   | Operational           | 0.0   | 0.0  | 0.0                            | 0.0  | 1.0  | 1.0  | 1.1                           | 1.0   | 5.5     | 9.6     |
| External Auxiliary Pwr Unit (EAPU) [MOD 14]                        |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-85-05-4057   | Operational           | 0.0   | 8.0  | 2.0                            | 0.0  | 0.0  | 0.0  | 0.0                           | 0.0   | 40.8    | 50.8    |
| External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15]               |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4521   | Operational           | 0.0   | 2.4  | 0.0                            | 0.0  | 0.0  | 0.0  | 0.0                           | 0.0   | 0.0     | 2.4     |
| NBC Fire Warning (NBCFW) [MOD 16]                                  |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4524   | Safety                | 0.0   | 0.0  | 0.0                            | 4.1  | 3.3  | 0.4  | 0.0                           | 0.0   | 5.3     | 13.1    |
| Hand-Held Fire Extinguisher (HHFE) [MOD 17]                        |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4525   | Safety                | 0.0   | 0.0  | 0.0                            | 0.0  | 1.8  | 0.0  | 0.0                           | 0.0   | 0.0     | 1.8     |
| M1A2 Field Mods (A2FM) [MOD 18]                                    |                       |       |      |                                |      |      |      |                               |       |         |         |
| 1-97-05-4534   | Deficiency Correction | 0.0   | 1.4  | 0.9                            | 0.2  | 1.0  | 2.0  | 1.0                           | 1.2   | 6.0     | 13.7    |
| Matrix Support (MXSP) [MOD 19]                                     |                       |       |      |                                |      |      |      |                               |       |         |         |
| OSIP NO 20   | Operational           | 0.0   | 0.5  | 0.5                            | 0.5  | 0.6  | 0.6  | 0.6                           | 0.6   | 3.4     | 7.3     |
| Prior Year Mod Installation (PYMI) [MOD 20]                        |                       |       |      |                                |      |      |      |                               |       |         |         |
| OSIP NO 21   | Operational           | 65.0  | 4.9  | 0.5                            | 0.0  | 0.0  | 0.0  | 0.0                           | 0.0   | 0.0     | 70.4    |
| M1A1-D Integration Kit [MOD 21]                                    |                       |       |      |                                |      |      |      |                               |       |         |         |
| OSIP NO. 22  | Operational           | 0.0   | 0.0  | 0.0                            | 20.3 | 0.0  | 0.0  | 0.0                           | 0.0   | 271.4   | 291.7   |
| Totals   |                       | 221.7 | 62.9 | 29.2                           | 53.3 | 30.4 | 62.5 | 97.1                          | 119.9 | 1,348.4 | 2,025.4 |

| INDIVIDUAL MODIFICATION   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | Date           |          |     |        |                     |  |  |  |      |  |  |  |
|---|--|----------------------|-----|-----|-----|----------------|-----|-----|-----|-----------------------------------|-----|-----|-----|-------------------------------|-----|-----|----------------|----------|-----|--------|---------------------|--|--|--|------|--|--|--|
|   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | February 1998  |          |     |        |                     |  |  |  |      |  |  |  |
| MODIFICATION TITLE: Halon Replacement (HAR) [MOD 1] 1-92-05-4411  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 355 , IPM1 = 818 , M1A1 = 4327 , M1A2 = 650 TOTAL RQMT = 6150  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>This Modification changes the engine compartment fire suppression system in all models of the Abrams tank. This retrofit involves the substitution of a dry powder fire retardant (FM-200) for the Halon 1301 gas currently used. This requirement was mandated by the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals [ODC's] including the Halon 1301 used in the Abrams Tank Engine Compartment [Halon 1301 remains authorized for the Abrams Crew Compartment due to survivability concerns]. See 1992 DOD directive 6050.9 which establishes the policy on ODC's for Armed Forces and DA letter 200 / 9 which implements that policy within the U.S. Army. The Halon 1301 replacement modification represents the implementation of a Presidential directive.</p> |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | <u>PLANNED</u> |          |     |        | <u>ACCOMPLISHED</u> |  |  |  |      |  |  |  |
| Preliminary Design Review   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 1Q93                |  |  |  | 1Q93 |  |  |  |
| Critical Design Review  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 1Q94                |  |  |  | 3Q94 |  |  |  |
| Contractor Test & Eval.   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 2Q96                |  |  |  | 2Q96 |  |  |  |
| Development Test & Eval.  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 3Q96                |  |  |  | 4Q96 |  |  |  |
| Initial Operational Test & Eval.  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 2Q97                |  |  |  | 3Q97 |  |  |  |
| IPR Production Decision   |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 4Q97                |  |  |  | 4Q97 |  |  |  |
| Tech. Data Package Available  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     | -              |          |     |        | 3Q98                |  |  |  |      |  |  |  |
| Installation Schedule:  |  |                      |     |     |     |                |     |     |     |                                   |     |     |     |                               |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |
| Pr Yr   |  | FY 1997              |     |     |     | FY 1998        |     |     |     | FY 1999                           |     |     |     | FY 2000                       |     |     |                | FY 2001  |     |        |                     |  |  |  |      |  |  |  |
| Totals  |  | 1                    | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1                                 | 2   | 3   | 4   | 1                             | 2   | 3   | 4              | 1        | 2   | 3      | 4                   |  |  |  |      |  |  |  |
| <b>Inputs</b>   |  |                      |     |     |     |                |     |     | 270 | 300                               | 300 | 300 | 300 | 300                           | 300 | 300 | 300            | 300      | 300 | 300    | 300                 |  |  |  |      |  |  |  |
| <b>Outputs</b>  |  |                      |     |     |     |                |     |     |     |                                   | 30  | 270 | 270 | 270                           | 270 | 270 | 270            | 270      | 270 | 270    | 270                 |  |  |  |      |  |  |  |
|   |  | FY 2002              |     |     |     | FY 2003        |     |     |     | FY 2004                           |     |     |     | FY 2005                       |     |     |                | To       |     | Totals |                     |  |  |  |      |  |  |  |
|   |  | 1                    | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1                                 | 2   | 3   | 4   | 1                             | 2   | 3   | 4              | Complete |     |        |                     |  |  |  |      |  |  |  |
| <b>Inputs</b>   |  | 300                  | 300 | 300 | 300 | 300            | 300 | 300 | 150 | 30                                |     |     |     |                               |     |     |                |          |     | 6150   |                     |  |  |  |      |  |  |  |
| <b>Outputs</b>  |  | 270                  | 270 | 270 | 270 | 270            | 270 | 270 | 270 | 270                               | 270 | 270 | 180 |                               |     |     |                |          |     | 6150   |                     |  |  |  |      |  |  |  |
| METHOD OF IMPLEMENTATION:   |  | Contr. / Depot Teams |     |     |     |                |     |     |     | ADMINISTRATIVE LEADTIME: 3 Months |     |     |     | PRODUCTION LEADTIME: 4 Months |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |
| Contract Dates:   |  | FY 1997 N / A        |     |     |     | FY 1998 APR 98 |     |     |     | FY 1999 APR 99                    |     |     |     |                               |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |
| Delivery Date:  |  | FY 1997 N / A        |     |     |     | FY 1998 AUG 98 |     |     |     | FY 1999 AUG 99                    |     |     |     |                               |     |     |                |          |     |        |                     |  |  |  |      |  |  |  |

| INDIVIDUAL MODIFICATION          |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         | Date   |     |      |       |      |
|----------------------------------|--|-------------------|-----|---------|-----|---------|-----|---------|------|---------|------|---------|------|---------|------|---------|--|-----|------|-------|------|
|                                  |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         | February 1998                                |     |      |       |      |
| MODIFICATION TITLE (Cont):       |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         | Halon Replacement (HAR) [MOD 1] 1-92-05-4411 |     |      |       |      |
| FINANCIAL PLAN: (\$ in Millions) |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
|                                  |  | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |      | FY 2000 |      | FY 2001 |      | FY 2002 |      | FY 2003 |  | TC  |      | TOTAL |      |
|                                  |  | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty     | \$   | Qty | \$   | Qty   | \$   |
| RDT&E                            |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| PROCUREMENT                      |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
|                                  |  | 0                 |     | 0       |     | 570     |     | 1080    |      | 1080    |      | 1080    |      | 1080    |      | 750     |  | 510 |      | 6150  |      |
| Kit Quantity                     |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Installation Kits                |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Installation Kits, Nonrecurring  |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Equipment                        |  |                   |     |         |     | 2.0     |     | 3.9     |      | 3.9     |      | 4.0     |      | 4.1     |      | 2.9     |  | 2.1 |      | 22.9  |      |
| Equipment, Nonrecurring          |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Engineering Change Orders        |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Engineering & Source Select.     |  |                   | 7.4 |         | 1.5 |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       | 8.9  |
| Training Equipment               |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Support Equipment                |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Other                            |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Interim Contractor Support       |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| Installation of Hardware         |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| FY 1996 & Prior Eqpt -- Kits     |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| FY 1997 Eqpt -- Kits             |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  |     |      |       |      |
| FY 1998 Eqpt -- Kits             |  |                   |     |         |     |         | 570 | 1.4     |      |         |      |         |      |         |      |         |  |     |      | 570   | 1.4  |
| FY 1999 Eqpt -- Kits             |  |                   |     |         |     |         |     |         | 1080 | 2.6     |      |         |      |         |      |         |  |     |      | 1080  | 2.6  |
| FY 2000 Eqpt -- kits             |  |                   |     |         |     |         |     |         |      | 1080    | 2.6  |         |      |         |      |         |  |     |      | 1080  | 2.6  |
| FY 2001 Eqpt -- kits             |  |                   |     |         |     |         |     |         |      |         |      | 1080    | 2.7  |         |      |         |  |     |      | 1080  | 2.7  |
| FY 2002 Eqpt -- kits             |  |                   |     |         |     |         |     |         |      |         |      |         |      | 1080    | 2.8  |         |  |     |      | 1080  | 2.8  |
| FY 2003 Eqpt -- kits             |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  | 750 | 2.1  | 750   | 2.1  |
| TC Equip -- 510 Kits             |  |                   |     |         |     |         |     |         |      |         |      |         |      |         |      |         |  | 510 | 1.4  | 510   | 1.4  |
| Total Installment                |  |                   |     |         |     |         | 570 | 1.4     | 1080 | 2.6     | 1080 | 2.6     | 1080 | 2.7     | 1080 | 2.8     | 1260   | 3.5 | 6150 | 15.6  |      |
| Total Procurement Cos            |  |                   | 7.4 |         | 1.5 |         | 2.0 |         | 5.3  |         | 6.5  |         | 6.6  |         | 6.8  |         | 5.7  |     | 5.6  |       | 47.4 |

| INDIVIDUAL MODIFICATION   |  |                    |   |     |     |                          |     |     |     | Date           |     | February 1998 |     |                      |                     |     |     |          |        |   |   |
|---|--|--------------------|---|-----|-----|--------------------------|-----|-----|-----|----------------|-----|---------------|-----|----------------------|---------------------|-----|-----|----------|--------|---|---|
| MODIFICATION TITLE: Driver's Hatch Interlock (DHI) [Mod 2] 1-97-05-4520   |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 818 , M1A1 = 4327 , M1A2 = 435 TOTAL RQMT = 5580  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| DESCRIPTION / JUSTIFICATION:  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| <p>The Driver's Hatch Interlock (DHI) is a SAFETY modification which provides an electronic interface between the Driver's Hatch and the Turret Drive (Rotation) controls. Its purpose is to preclude turret rotation while the driver's hatch is open. In the past there have been several accidents in the field where the driver has been injured or killed by inadvertently extending his head outside the hatch while the turret was being rotated. The DHI will assure that similar accidents will not occur in the future. Without this funding, the potential exists for additional driver accidents and / or fatalities.</p> <p>April 97 contract award shown below is M1A2 only.<br/>           January 98 contract award shown below is M1A1 only.</p> |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                    |   |     |     |                          |     |     |     | <u>PLANNED</u> |     |               |     |                      | <u>ACCOMPLISHED</u> |     |     |          |        |   |   |
| Preliminary Design Review   |  |                    |   |     |     |                          |     |     |     | - - - - 2Q96   |     |               |     |                      | 1Q93                |     |     |          |        |   |   |
| Critical Design Review  |  |                    |   |     |     |                          |     |     |     | - - - - 3Q96   |     |               |     |                      | 3Q94                |     |     |          |        |   |   |
| Development Test & Eval.  |  |                    |   |     |     |                          |     |     |     | - - - - 4Q96   |     |               |     |                      | 4Q96                |     |     |          |        |   |   |
| IPR Production Decision   |  |                    |   |     |     |                          |     |     |     | - - - - 4Q97   |     |               |     |                      | 4Q97                |     |     |          |        |   |   |
| ECP Completed   |  |                    |   |     |     |                          |     |     |     | - - - - 1Q98   |     |               |     |                      | 1Q98                |     |     |          |        |   |   |
| Tech. Data Package Available  |  |                    |   |     |     |                          |     |     |     | - - - - 1Q98   |     |               |     |                      |                     |     |     |          |        |   |   |
| Installation Schedule:  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     |          |        |   |   |
| Pr Yr   |  | FY 1997            |   |     |     | FY 1998                  |     |     |     | FY 1999        |     |               |     | FY 2000              |                     |     |     | FY 2001  |        |   |   |
| Totals  |  | 1                  | 2 | 3   | 4   | 1                        | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1                    | 2                   | 3   | 4   | 1        | 2      | 3 | 4 |
| <b>Inputs</b>   |  |                    |   | 375 | 400 | 400                      | 400 | 400 | 150 | 145            | 140 | 135           | 135 | 135                  | 135                 | 131 |     |          |        |   |   |
| <b>Outputs</b>  |  |                    |   | 180 | 242 | 266                      | 267 | 267 | 267 | 106            | 107 | 107           | 107 | 292                  | 291                 | 291 | 291 |          |        |   |   |
|   |  | FY 2002            |   |     |     | FY 2003                  |     |     |     | FY 2004        |     |               |     | FY 2005              |                     |     |     | To       | Totals |   |   |
|   |  | 1                  | 2 | 3   | 4   | 1                        | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1                    | 2                   | 3   | 4   | Complete |        |   |   |
| <b>Inputs</b>   |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     | 2499     | 5580   |   |   |
| <b>Outputs</b>  |  |                    |   |     |     |                          |     |     |     |                |     |               |     |                      |                     |     |     | 2499     | 5580   |   |   |
| METHOD OF IMPLEMENTATION:   |  | Contractor Install |   |     |     | ADMINISTRATIVE LEADTIME: |     |     |     | 2 Months       |     |               |     | PRODUCTION LEADTIME: |                     |     |     | 4 Months |        |   |   |
| Contract Dates:   |  | FY 1997 APR 97     |   |     |     | FY 1998 JAN 98           |     |     |     | FY 1999 FEB 99 |     |               |     |                      |                     |     |     |          |        |   |   |
| Delivery Date:  |  | FY 1997 AUG 97     |   |     |     | FY 1998 MAY 98           |     |     |     | FY 1999 JUN 99 |     |               |     |                      |                     |     |     |          |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Driver's Hatch Interlock (DHI) [Mod 2] 1-97-05-4520

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |      | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |      | TOTAL |      |      |
|---------------------------------|-------------------|----|---------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|------|------|-------|------|------|
|                                 | Qty               | \$ | Qty     | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$   | Qty   | \$   |      |
| RDT&E                           |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| PROCUREMENT                     |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Kit Quantity                    |                   |    | 2433    |      | 228     |     | 420     |     |         |     |         |    |         |    |         |    | 2499 |      | 5580  |      |      |
| Installation Kits               |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Installation Kits, Nonrecurring |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Equipment                       |                   |    |         | 18.5 |         | 2.1 |         | 4.0 |         |     |         |    |         |    |         |    |      | 27.3 |       |      | 51.9 |
| Equipment, Nonrecurring         |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Engineering Change Orders       |                   |    |         | 1.1  |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      | 1.1  |
| Data                            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Training Equipment              |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Support Equipment               |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Other (Tst & Source select)     |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Interim Contractor Support      |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| Installation of Hardware        |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| FY 1997 Eqpt -- Kits            |                   |    | 422     | 0.8  | 1067    | 4.4 | 427     | 1.8 | 517     | 2.2 |         |    |         |    |         |    |      |      |       | 2433 | 9.2  |
| FY 1998 Eqpt -- Kits            |                   |    |         |      |         |     |         |     | 228     | 0.9 |         |    |         |    |         |    |      |      |       | 228  | 0.9  |
| FY 1999 Eqpt -- Kits            |                   |    |         |      |         |     |         |     | 420     | 1.8 |         |    |         |    |         |    |      |      |       | 420  | 1.8  |
| FY 2000 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| FY 2001 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| FY 2002 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| FY 2003 Eqpt -- kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    |      |      |       |      |      |
| TC Equip 2499 --Kits            |                   |    |         |      |         |     |         |     |         |     |         |    |         |    |         |    | 2499 | 12.5 | 2499  | 12.5 |      |
| 4                               |                   |    | 422     | 0.8  | 1067    | 4.4 | 427     | 1.8 | 1165    | 4.9 |         |    |         |    |         |    | 2499 | 12.5 | 5580  | 24.4 |      |
| Total Procurement Cos           |                   |    |         | 20.4 |         | 6.5 |         | 5.8 |         | 4.9 |         |    |         |    |         |    |      | 39.8 |       |      | 77.4 |

| INDIVIDUAL MODIFICATION   |  |         |     |     |     |         |     |     |     | Date           |     | February 1998 |     |         |                     |     |     |          |   |        |   |  |
|---|--|---------|-----|-----|-----|---------|-----|-----|-----|----------------|-----|---------------|-----|---------|---------------------|-----|-----|----------|---|--------|---|--|
| MODIFICATION TITLE: Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 4327 , M1A2 = 181 TOTAL RQMT = 4508  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The Vehicle Intercommunications System (VIS) is an intercom for inter-crew communications and a connection to a radio for to tank direct communications. VIS replaces the AN / VIC - 1 which is technologically obsolete, difficult to maintain and susceptible to electronic countermeasures. VIS is a state-of-the-art replacement which has none of these drawbacks. This is a Congressionally mandated program. All milestones are for USA CECOM, the "A" proponent for the VIS program. Current fun will provide for the retrofit of all M1A2's produced prior to VIS availability (Balance of M1A2's will be fitted in production via M1A2 Upgrade program) and all M1A1's. |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |         |     |     |     |         |     |     |     | <u>PLANNED</u> |     |               |     |         | <u>ACCOMPLISHED</u> |     |     |          |   |        |   |  |
| Development Test & Eval.  |  |         |     |     |     |         |     |     |     | - - - - - 4Q92 |     |               |     |         | 2Q92                |     |     |          |   |        |   |  |
| Initial Operational Test & Eval.  |  |         |     |     |     |         |     |     |     | - - - - - 3Q94 |     |               |     |         | 3Q94                |     |     |          |   |        |   |  |
| IPR Production Decision   |  |         |     |     |     |         |     |     |     | - - - - - 4Q94 |     |               |     |         | 4Q94                |     |     |          |   |        |   |  |
| Installation Schedule:  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |
| Pr Yr   |  | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999        |     |               |     | FY 2000 |                     |     |     | FY 2001  |   |        |   |  |
| Totals  |  | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1       | 2                   | 3   | 4   | 1        | 2 | 3      | 4 |  |
| <b>Inputs</b>   |  | 2568    | 164 | 164 | 164 | 163     | 128 | 128 | 128 | 128            | 113 | 113           | 113 | 112     |                     |     |     |          |   |        |   |  |
| <b>Outputs</b>  |  | 1932    | 159 | 159 | 159 | 159     | 163 | 164 | 164 | 164            | 128 | 128           | 128 | 128     | 128                 | 128 | 128 | 67       |   |        |   |  |
|   |  | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004        |     |               |     | FY 2005 |                     |     |     | To       |   | Totals |   |  |
|   |  | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3             | 4   | 1       | 2                   | 3   | 4   | Complete |   |        |   |  |
| <b>Inputs</b>   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     | 322      |   | 4508   |   |  |
| <b>Outputs</b>  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     | 322      |   | 4508   |   |  |
| IMPLEMENTATION: Depot / Contr. Field Teams ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 4 Months  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |
| Contract Dates: FY 1997 APR 97 FY 1998 JUN 98 FY 1999 JUN 99  |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |
| Delivery Date: FY 1997 SEP 97 FY 1998 OCT 98 FY 1999 OCT 99   |  |         |     |     |     |         |     |     |     |                |     |               |     |         |                     |     |     |          |   |        |   |  |

| INDIVIDUAL MODIFICATION          |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Date  |     | February 1998 |      |     |
|----------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---|-----|---------------|------|-----|
| MODIFICATION TITLE (Cont):       |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412 |     |               |      |     |
| FINANCIAL PLAN: (\$ in Millions) |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
|                                  | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |     | TOTAL         |      |     |
|                                  | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty   | \$  | Qty           | \$   |     |
| RDT&E                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| PROCUREMENT                      |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| Kit Quantity                     | 2568              |      | 655     |     | 512     |     | 451     |     |         |     |         |    |         |    |         |    | 322   |     | 4508          |      |     |
| Installation Kits                |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| Installation Kits, Nonrecurring  |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| Equipment                        |                   | 22.9 |         | 5.7 |         | 5.1 |         | 4.6 |         |     |         |    |         |    |         |    |   | 3.9 |               | 42.2 |     |
| Equipment, Nonrecurring          |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| Engineering Change Orders        |                   | 0.2  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               | 0.2  |     |
| Testing                          |                   | 0.2  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               | 0.2  |     |
| Training Equipment               |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| Support Equipment                |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| Other                            |                   | 1.7  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               | 1.7  |     |
| Interim Contractor Support       |                   | 0.5  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               | 0.5  |     |
| Installation of Hardware         |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| FY 1996 & Prior Eqpt -- Kits     | 1932              | 1.5  | 636     | 0.9 |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               | 2568 | 2.4 |
| FY 1997 Eqpt -- Kits             |                   |      |         |     | 655     | 0.9 |         |     |         |     |         |    |         |    |         |    |   |     |               | 655  | 0.9 |
| FY 1998 Eqpt -- Kits             |                   |      |         |     |         |     | 512     | 0.7 |         |     |         |    |         |    |         |    |   |     |               | 512  | 0.7 |
| FY 1999 Eqpt -- Kits             |                   |      |         |     |         |     |         |     | 451     | 0.7 |         |    |         |    |         |    |   |     |               | 451  | 0.7 |
| FY 2000 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| FY 2001 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| FY 2002 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| FY 2003 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |   |     |               |      |     |
| TC Equip -- 322 Kits             |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | 322   | 0.6 | 322           | 0.6  |     |
| Total Installment                | 1932              | 1.5  | 636     | 0.9 | 655     | 0.9 | 512     | 0.7 | 451     | 0.7 |         |    |         |    |         |    | 322   | 0.6 | 4508          | 5.3  |     |
| Total Procurement Cos            |                   | 27.0 |         | 6.6 |         | 6.0 |         | 5.3 |         | 0.7 |         |    |         |    |         |    |   | 4.5 |               | 50.1 |     |

| INDIVIDUAL MODIFICATION   |  |               |    |    |    |               |   |   |   | Date                                  |   | February 1998 |   |         |                                   |   |   |          |   |        |   |
|---|--|---------------|----|----|----|---------------|---|---|---|---------------------------------------|---|---------------|---|---------|-----------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Armament Enhancement Initiative (AEI) [MOD 4] 1-89-05-4226  |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327   |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br><p>The Armament Enhancement Initiative (AEI) is a high priority program to improve the lethality of the Abrams M1A1 tank fleet by improving the 120mm main armament ammunition and by modifying the fire control system via new ballistic solutions and reticle changes to allow the tank to accept the new rounds (All M1A2's are receiving this mod in production). The ammunition upgrades will significantly improve kill ratios in actions such as Operation Desert Storm. This program also includes the upg of the first 1629ea M1A1 gun mounts to the higher pressure (and higher muzzle velocity) AEI configuration (the balance of delivered gun mounts were supplied in this configuration for production). The Gun Mount upgrade is an RIA (Rock Island Arsenal) effort; Reticle revisions are contracted and field retrofits to the tanks are completed by a Depot Team.</p> |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |    |    |    |               |   |   |   | <u>PLANNED</u>                        |   |               |   |         | <u>ACCOMPLISHED</u>               |   |   |          |   |        |   |
| Preliminary Design Review   |  |               |    |    |    |               |   |   |   | - - - - - 2Q91                        |   |               |   |         | 3Q91                              |   |   |          |   |        |   |
| Critical Design Review  |  |               |    |    |    |               |   |   |   | - - - - - 3Q91                        |   |               |   |         | 4Q91                              |   |   |          |   |        |   |
| Contractor Test & Eval.   |  |               |    |    |    |               |   |   |   | - - - - - 3Q91                        |   |               |   |         | 4Q91                              |   |   |          |   |        |   |
| Initial Operational Test & Eval.  |  |               |    |    |    |               |   |   |   | - - - - - 4Q91                        |   |               |   |         | 1Q92                              |   |   |          |   |        |   |
| TDP Available   |  |               |    |    |    |               |   |   |   | - - - - - 2Q92                        |   |               |   |         | 1Q92                              |   |   |          |   |        |   |
| Installation Schedule:  |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997       |    |    |    | FY 1998       |   |   |   | FY 1999                               |   |               |   | FY 2000 |                                   |   |   | FY 2001  |   |        |   |
| Totals  |  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1                                     | 2 | 3             | 4 | 1       | 2                                 | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  | 4327          |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
| <b>Outputs</b>  |  | 38            | 38 | 37 | 37 |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   |        |   |
|   |  | FY 2002       |    |    |    | FY 2003       |   |   |   | FY 2004                               |   |               |   | FY 2005 |                                   |   |   | To       |   | Totals |   |
|   |  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1                                     | 2 | 3             | 4 | 1       | 2                                 | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   | 4327   |   |
| <b>Outputs</b>  |  |               |    |    |    |               |   |   |   |                                       |   |               |   |         |                                   |   |   |          |   | 4327   |   |
| METHOD OF IMPLEMENTATION: See Description   |  |               |    |    |    |               |   |   |   | ADMINISTRATIVE LEADTIME: N / A Months |   |               |   |         | PRODUCTION LEADTIME: N / A Months |   |   |          |   |        |   |
| Contract Dates:   |  | FY 1997 N / A |    |    |    | FY 1998 N / A |   |   |   | FY 1999 N / A                         |   |               |   |         |                                   |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 N / A |    |    |    | FY 1998 N / A |   |   |   | FY 1999 N / A                         |   |               |   |         |                                   |   |   |          |   |        |   |



INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Armament Enhancement Initiative (AEI) [MOD 4] 1-89-05-4226

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |      |
|---------------------------------|-------------------|------|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|------|
|                                 | Qty               | \$   | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |      |
| RDT&E                           |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| PROCUREMENT                     |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Kit Quantity                    | 4327              |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 4327 |      |
| Installation Kits               |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation Kits, Nonrecurring |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Equipment                       |                   | 26.4 |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 26.4 |
| Equipment, Nonrecurring         |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Engineering Change Orders       |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Data (In - House Support)       |                   | 3.2  |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 3.2  |
| Training Equipment              |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Support Equipment               |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Other (Gun Mount Rebuild)       |                   | 15.2 |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 15.2 |
| Interim Contractor Support      |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation of Hardware        |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    | 4177              | 15.3 | 150     | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 4327 | 15.7 |
| FY 1997 Eqpt -- Kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2000 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2001 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2002 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2003 Eqpt -- kits            |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| TC Equip-Kits                   |                   |      |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Total Installment               | 4177              | 15.3 | 150     | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 4327 | 15.7 |
| Total Procurement Cos           |                   | 60.1 |         | 0.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 60.5 |

| INDIVIDUAL MODIFICATION  |  |         |    |    |         |         |    |    |    | Date                              |    | February 1998 |    |         |                               |    |    |          |        |   |    |  |  |  |
|--|--|---------|----|----|---------|---------|----|----|----|-----------------------------------|----|---------------|----|---------|-------------------------------|----|----|----------|--------|---|----|--|--|--|
| MODIFICATION TITLE: Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417   |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327ea  |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>The Precision Lightweight GPS Receiver (PLGR) is a self-contained locator unit which can collect and process GPS satellite signals and derive Position (To within + or - 10 meters), Velocity and Time (PVT). The funding shown is for the PLGR Installation Kit only. PLGR units were procured and provided to PM Abrams by PM GPS. |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |         |    |    |         |         |    |    |    | <u>PLANNED</u>                    |    |               |    |         | <u>ACCOMPLISHED</u>           |    |    |          |        |   |    |  |  |  |
| Preliminary Design Review  |  |         |    |    |         |         |    |    |    | - - - - - 2Q91                    |    |               |    |         | 2Q91                          |    |    |          |        |   |    |  |  |  |
| Critical Design Review   |  |         |    |    |         |         |    |    |    | - - - - - 4Q91                    |    |               |    |         | 4Q91                          |    |    |          |        |   |    |  |  |  |
| Contractor Test & Eval.  |  |         |    |    |         |         |    |    |    | - - - - - 3Q93                    |    |               |    |         | 4Q93                          |    |    |          |        | ** Delayed by<br>continuing<br>EMI problems |    |  |  |  |
| Development Test & Eval.   |  |         |    |    |         |         |    |    |    | - - - - - 1Q94                    |    |               |    |         | 3Q94                          |    |    |          |        |   |    |  |  |  |
| Initial Operational Test & Eval.   |  |         |    |    |         |         |    |    |    | - - - - - 4Q94                    |    |               |    |         | 1Q95                          |    |    |          |        |   |    |  |  |  |
| IPR Production Decision  |  |         |    |    |         |         |    |    |    | - - - - - 4Q94                    |    |               |    |         | 2Q95                          |    |    |          |        |   |    |  |  |  |
| TDP Available  |  |         |    |    |         |         |    |    |    | - - - - - 2Q97                    |    |               |    |         | **                            |    |    |          |        |   |    |  |  |  |
| Installation Schedule:   |  |         |    |    |         |         |    |    |    |                                   |    |               |    |         |                               |    |    |          |        |   |    |  |  |  |
| Pr Yr  |  | FY 1997 |    |    |         | FY 1998 |    |    |    | FY 1999                           |    |               |    | FY 2000 |                               |    |    | FY 2001  |        |   |    |  |  |  |
|  |  | 1       | 2  | 3  | 4       | 1       | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4  | 1        | 2      | 3   | 4  |  |  |  |
| <b>Inputs</b>  |  | 38      |    |    |         |         |    |    |    |                                   | 50 | 50            | 50 | 50      | 50                            | 50 | 50 | 50       | 50     | 50  | 50 |  |  |  |
| <b>Outputs</b>   |  | 38      |    |    |         |         |    |    |    |                                   | 50 | 50            | 50 | 50      | 50                            | 50 | 50 | 50       | 50     | 50  | 50 |  |  |  |
|  |  | FY 2002 |    |    |         | FY 2003 |    |    |    | FY 2004                           |    |               |    | FY 2005 |                               |    |    | To       | Totals |   |    |  |  |  |
|  |  | 1       | 2  | 3  | 4       | 1       | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4  | Complete |        |   |    |  |  |  |
| <b>Inputs</b>  |  | 50      | 50 | 50 | 50      | 50      | 50 | 50 | 50 | 50                                |    |               |    |         |                               |    |    | 3289     | 4327   |   |    |  |  |  |
| <b>Outputs</b>   |  | 50      | 50 | 50 | 50      | 50      | 50 | 50 | 50 | 50                                |    |               |    |         |                               |    |    | 3289     | 4327   |   |    |  |  |  |
| METHOD OF IMPLEMENTATION: Depot Field Team   |  |         |    |    |         |         |    |    |    | ADMINISTRATIVE LEADTIME: 2 Months |    |               |    |         | PRODUCTION LEADTIME: 5 Months |    |    |          |        |   |    |  |  |  |
| Contract Dates: FY 1997  |  |         |    |    | FY 1998 |         |    |    |    | AUG 98                            |    |               |    |         | FY 1999                       |    |    |          |        | JUL 99                                      |    |  |  |  |
| Delivery Date: FY 1997   |  |         |    |    | FY 1998 |         |    |    |    | JAN 99                            |    |               |    |         | FY 1999                       |    |    |          |        | DEC 99                                      |    |  |  |  |

| INDIVIDUAL MODIFICATION                   |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | Date   |      | February 1998 |     |      |
|---|-------------------|-----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|--|------|---------------|-----|------|
| MODIFICATION TITLE (Cont):                |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417 |      |               |     |      |
| FINANCIAL PLAN: (\$ in Millions)          |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
|   | FY 1996 and Prior |     | FY 1997 |    | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC   |      | TOTAL         |     |      |
|   | Qty               | \$  | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty  | \$   | Qty           | \$  |      |
| RDT&E                                     |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| PROCUREMENT                               |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Kit Quantity                              | 38                |     |         |    | 200     |     | 200     |     | 200     |     | 200     |     | 200     |     | 200     |     | 3089   |      | 4327          |     |      |
| Installation Kits                         |                   | 0.1 |         |    |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |  | 10.0 |               |     | 13.1 |
| Installation Kits, Nonrecurring Equipment |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Equipment, Nonrecurring                   |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Engineering Change Orders                 |                   | 0.1 |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     | 0.1  |
| Data                                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Training Equipment                        |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Support Equipment                         |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Other (Benet Labs)                        |                   | 0.1 |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     | 0.1  |
| Interim Contractor Support                |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| Installation of Hardware                  |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     |      |
| FY 1996 & Prior Eqpt -- Kits              | 38                | 0.1 |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               | 38  | 0.1  |
| FY 1997 Eqpt -- Kits                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     |  |      |               |     | 200  |
| FY 1998 Eqpt -- Kits                      |                   |     |         |    |         |     | 200     | 0.1 |         |     |         |     |         |     |         |     |  |      |               |     | 200  |
| FY 1999 Eqpt -- Kits                      |                   |     |         |    |         |     |         |     | 200     | 0.1 |         |     |         |     |         |     |  |      |               |     | 200  |
| FY 2000 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     | 200     | 0.1 |         |     |         |     |  |      |               |     | 200  |
| FY 2001 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     |         |     | 200     | 0.1 |         |     |  |      |               |     | 200  |
| FY 2002 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     | 200     | 0.1 |  |      |               |     | 200  |
| FY 2003 Eqpt -- kits                      |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | 200  | 0.1  |               |     | 200  |
| TC Equip -- 3089 Kits                     |                   |     |         |    |         |     |         |     |         |     |         |     |         |     |         |     | 200  | 0.1  | 3089          | 3.3 | 3089 |
| Total Installment                         | 38                | 0.1 |         |    |         |     | 200     | 0.1 | 200     | 0.1 | 200     | 0.1 | 200     | 0.1 | 200     | 0.1 | 3289   | 3.4  | 4327          |     | 4.0  |
| Total Procurement Cos                     |                   | 0.4 |         |    |         |     | 0.5     |     | 0.6     |     | 0.6     |     | 0.6     |     | 0.6     |     | 0.6  |      | 13.4          |     | 17.3 |

| INDIVIDUAL MODIFICATION  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | Date                              |          |    |        |                               |    |  |  |      |  |  |  |
|--|--|---------|-----|-----|----------------|---------|----|----|----------------|---------|----|----|----------------|---------|----|----|-----------------------------------|----------|----|--------|-------------------------------|----|--|--|------|--|--|--|
|  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | February 1998                     |          |    |        |                               |    |  |  |      |  |  |  |
| MODIFICATION TITLE: Live Fire Category A (LFCA) [MOD 6] 1-89-05-4230   |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    |                                   |          |    |        |                               |    |  |  |      |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    |                                   |          |    |        |                               |    |  |  |      |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><br>Live Fire Category A consists of the following M1A1 Tank modifications: [1.] Independent Manual Blaster, [2.] Driver's / Loader's Hatch Ballistic Rims, [3.] AFES Wiring Harness Ballistic Protection and [4.] Driver's Hatch Latch Mechanism. Each of these modifications corrects a deficiency relating to tank survivability found during Live - Fire Testing. These modifications planned for concurrent procurement and installation as a portion of Block G. |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    |                                   |          |    |        |                               |    |  |  |      |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | <u>PLANNED</u>                    |          |    |        | <u>ACCOMPLISHED</u>           |    |  |  |      |  |  |  |
| Preliminary Design Review  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | -                                 |          |    |        | 2Q89                          |    |  |  | 2Q89 |  |  |  |
| Critical Design Review   |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | -                                 |          |    |        | 1Q91                          |    |  |  | 1Q91 |  |  |  |
| Contractor Test & Eval.  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | -                                 |          |    |        | 4Q91                          |    |  |  | 4Q91 |  |  |  |
| IPR Production Decision  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | -                                 |          |    |        | 2Q92                          |    |  |  | 2Q92 |  |  |  |
| TDP Available  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | -                                 |          |    |        | 4Q92                          |    |  |  | 4Q92 |  |  |  |
| Installation Schedule:   |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    |                                   |          |    |        |                               |    |  |  |      |  |  |  |
| Pr Yr  |  | FY 1997 |     |     |                | FY 1998 |    |    |                | FY 1999 |    |    |                | FY 2000 |    |    |                                   | FY 2001  |    |        |                               |    |  |  |      |  |  |  |
| Totals   |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4              | 1       | 2  | 3  | 4              | 1       | 2  | 3  | 4                                 | 1        | 2  | 3      | 4                             |    |  |  |      |  |  |  |
| <b>Inputs</b>  |  | 1400    | 135 | 136 | 135            | 136     | 97 | 97 | 98             | 98      | 97 | 97 | 98             | 98      | 97 | 97 | 98                                | 98       | 97 | 97     | 98                            | 98 |  |  |      |  |  |  |
| <b>Outputs</b>   |  | 1400    | 135 | 136 | 135            | 136     | 97 | 97 | 98             | 98      | 97 | 97 | 98             | 98      | 97 | 97 | 98                                | 98       | 97 | 97     | 98                            | 98 |  |  |      |  |  |  |
|  |  | FY 2002 |     |     |                | FY 2003 |    |    |                | FY 2004 |    |    |                | FY 2005 |    |    |                                   | To       |    | Totals |                               |    |  |  |      |  |  |  |
|  |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4              | 1       | 2  | 3  | 4              | 1       | 2  | 3  | 4                                 | Complete |    |        |                               |    |  |  |      |  |  |  |
| <b>Inputs</b>  |  | 97      | 97  | 98  | 98             | 97      | 97 | 98 | 98             | 45      |    |    |                |         |    |    |                                   |          |    | 4327   |                               |    |  |  |      |  |  |  |
| <b>Outputs</b>   |  | 97      | 97  | 98  | 98             | 97      | 97 | 98 | 98             | 45      |    |    |                |         |    |    |                                   |          |    | 4327   |                               |    |  |  |      |  |  |  |
| METHOD OF IMPLEMENTATION: Contr. Field Team  |  |         |     |     |                |         |    |    |                |         |    |    |                |         |    |    | ADMINISTRATIVE LEADTIME: 2 Months |          |    |        | PRODUCTION LEADTIME: 6 Months |    |  |  |      |  |  |  |
| Contract Dates:  |  |         |     |     | FY 1997 JAN 97 |         |    |    | FY 1998 JUN 98 |         |    |    | FY 1999 DEC 98 |         |    |    |                                   |          |    |        |                               |    |  |  |      |  |  |  |
| Delivery Date:   |  |         |     |     | FY 1997 JUL 97 |         |    |    | FY 1998 DEC 98 |         |    |    | FY 1999 JUN 99 |         |    |    |                                   |          |    |        |                               |    |  |  |      |  |  |  |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Live Fire Category A (LFCA) [MOD 6] 1-89-05-4230

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |      |      |      |
|---------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|-----|-------|------|------|------|
|                                 | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$   |      |      |
| RDT&E                           |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| PROCUREMENT                     |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Kit Quantity                    | 2110              |      | 500     |     | 390     |     | 390     |     | 390     |     | 390     |     | 157     |     |         |     |     |     |       | 4327 |      |      |
| Installation Kits               |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Installation Kits, Nonrecurring |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Equipment                       |                   | 9.9  |         | 2.1 |         | 1.2 |         | 1.2 |         | 1.2 |         | 0.9 |         | 0.4 |         |     |     |     |       |      | 16.9 |      |
| Equipment, Nonrecurring         |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Engineering Change Orders       |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Data                            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Training Equipment              |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Support Equipment               |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Other (In - House Spt)          |                   | 0.1  |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      | 0.1  |      |
| Interim Contractor Support      |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Installation of Hardware        |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| FY 1996 & Prior Eqpt -- Kits    | 1400              | 4.5  | 542     | 3.2 | 168     | 1.0 |         |     |         |     |         |     |         |     |         |     |     |     |       | 2110 | 8.7  |      |
| FY 1997 Eqpt -- Kits            |                   |      |         |     | 222     | 1.3 | 278     | 1.7 |         |     |         |     |         |     |         |     |     |     |       |      | 500  | 3.0  |
| FY 1998 Eqpt -- Kits            |                   |      |         |     |         |     | 112     | 0.6 | 278     | 1.7 |         |     |         |     |         |     |     |     |       |      | 390  | 2.3  |
| FY 1999 Eqpt -- Kits            |                   |      |         |     |         |     |         |     | 112     | 0.6 | 278     | 1.8 |         |     |         |     |     |     |       |      | 390  | 2.4  |
| FY 2000 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     | 112     | 0.6 | 278     | 1.8 |         |     |     |     |       |      | 390  | 2.4  |
| FY 2001 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     |         |     | 112     | 0.7 | 278     | 1.8 |     |     |       |      | 390  | 2.5  |
| FY 2002 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     | 112     | 0.7 | 45  | 0.3 |       |      | 157  | 1.0  |
| FY 2003 Eqpt -- kits            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| TC Equip-Kits                   |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |      |      |      |
| Total Installment               | 1400              | 4.5  | 542     | 3.2 | 390     | 2.3 | 390     | 2.3 | 390     | 2.3 | 390     | 2.4 | 390     | 2.5 | 390     | 2.5 | 45  | 0.3 |       | 4327 | 22.3 |      |
| Total Procurement Cos           |                   | 14.5 |         | 5.3 |         | 3.5 |         | 3.5 |         | 3.5 |         | 3.3 |         | 2.9 |         | 2.5 |     | 0.3 |       |      |      | 39.3 |

| INDIVIDUAL MODIFICATION   |  |         |     |     |                |         |    |    |    | Date                              |     | February 1998 |     |         |                               |    |    |          |        |      |    |    |  |  |
|---|--|---------|-----|-----|----------------|---------|----|----|----|-----------------------------------|-----|---------------|-----|---------|-------------------------------|----|----|----------|--------|------|----|----|--|--|
| MODIFICATION TITLE: Battlefield Override (BF/OR) [MOD 7] 1-89-05-4229   |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |        |      |    |    |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 81 TOTAL RQMT = 4408  |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |        |      |    |    |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>Battlefield Override (BF/OR) is a completely mechanical bypass of the mechanical fuel / engine / transmission controls requiring no primary or back - up electrical system for operation. The purpose of BF/OR is to allow an Abrams Tank to extricate itself from the battlefield when normal fuel flow, engine control or transmission shifting have been lost through battle damage. BF/OR is designed for use in combat situations only; has no peacetime recovery role and is based on the premise that crew / tank self recovery takes priority over potential mechanical damage resulting from uncontrolled operation. This modification will significantly increase crew / tank survivability in a combat environment.</p> |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |        |      |    |    |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |         |     |     |                |         |    |    |    | <u>PLANNED</u>                    |     |               |     |         | <u>ACCOMPLISHED</u>           |    |    |          |        |      |    |    |  |  |
| Preliminary Design Review   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 4Q91                          |    |    |          |        | 4Q91 |    |    |  |  |
| Critical Design Review  |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 1Q92                          |    |    |          |        | 2Q92 |    |    |  |  |
| Contractor Test & Eval.   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 2Q92                          |    |    |          |        | 3Q92 |    |    |  |  |
| Development Test & Eval.  |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 1Q93                          |    |    |          |        | 3Q93 |    |    |  |  |
| IPR Production Decision   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 1Q93                          |    |    |          |        | 3Q93 |    |    |  |  |
| TDP Available   |  |         |     |     |                |         |    |    |    | -                                 |     |               |     |         | 3Q94                          |    |    |          |        | 1Q95 |    |    |  |  |
| Installation Schedule:  |  |         |     |     |                |         |    |    |    |                                   |     |               |     |         |                               |    |    |          |        |      |    |    |  |  |
| Pr Yr   |  | FY 1997 |     |     |                | FY 1998 |    |    |    | FY 1999                           |     |               |     | FY 2000 |                               |    |    | FY 2001  |        |      |    |    |  |  |
| Totals  |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4  | 1                                 | 2   | 3             | 4   | 1       | 2                             | 3  | 4  | 1        | 2      | 3    | 4  |    |  |  |
| <b>Inputs</b>   |  | 1421    | 114 | 115 | 114            | 115     | 84 | 83 | 83 | 83                                | 223 | 222           | 222 | 222     | 84                            | 83 | 83 | 83       | 84     | 83   | 83 | 83 |  |  |
| <b>Outputs</b>  |  | 1421    | 114 | 115 | 114            | 115     | 84 | 83 | 83 | 83                                | 223 | 222           | 222 | 222     | 84                            | 83 | 83 | 83       | 84     | 83   | 83 | 83 |  |  |
|   |  | FY 2002 |     |     |                | FY 2003 |    |    |    | FY 2004                           |     |               |     | FY 2005 |                               |    |    | To       | Totals |      |    |    |  |  |
|   |  | 1       | 2   | 3   | 4              | 1       | 2  | 3  | 4  | 1                                 | 2   | 3             | 4   | 1       | 2                             | 3  | 4  | Complete |        |      |    |    |  |  |
| <b>Inputs</b>   |  | 84      | 83  | 83  | 83             | 77      | 77 | 77 | 77 |                                   |     |               |     |         |                               |    |    |          | 4408   |      |    |    |  |  |
| <b>Outputs</b>  |  | 84      | 83  | 83  | 83             | 77      | 77 | 77 | 77 |                                   |     |               |     |         |                               |    |    |          | 4408   |      |    |    |  |  |
| METHOD OF IMPLEMENTATION: Depot Field Teams   |  |         |     |     |                |         |    |    |    | ADMINISTRATIVE LEADTIME: 2 Months |     |               |     |         | PRODUCTION LEADTIME: 6 Months |    |    |          |        |      |    |    |  |  |
| Contract Dates: FY 1997 MAY 97  |  |         |     |     | FY 1998 MAY 98 |         |    |    |    | FY 1999 MAY 99                    |     |               |     |         |                               |    |    |          |        |      |    |    |  |  |
| Delivery Date: FY 1997 NOV 97   |  |         |     |     | FY 1998 NOV 98 |         |    |    |    | FY 1999 NOV 99                    |     |               |     |         |                               |    |    |          |        |      |    |    |  |  |

| INDIVIDUAL MODIFICATION          |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    | Date  |      | February 1998 |  |
|----------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|---|------|---------------|--|
| MODIFICATION TITLE (Cont):       |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    | Battlefield Override (BF/OR) [MOD 7] 1-89-05-4229 |      |               |  |
| FINANCIAL PLAN: (\$ in Millions) |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
|                                  | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |    | TOTAL   |      |               |  |
|                                  | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$ | Qty   | \$   |               |  |
| RDT&E                            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| PROCUREMENT                      |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Kit Quantity                     | 2435              |      | 333     |     | 333     |     | 333     |     | 333     |     | 333     |     | 308     |     |         |     |     |    | 4408  |      |               |  |
| Installation Kits                |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Installation Kits, Nonrecurring  |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Equipment                        |                   | 3.9  |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.3 |         |     |     |    |   | 6.7  |               |  |
| Equipment, Nonrecurring          |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Engineering Change Orders        |                   | 1.1  |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   | 1.1  |               |  |
| Engineering / Testing            |                   | 1.9  |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   | 1.9  |               |  |
| Training Equipment               |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Support Equipment                |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Other                            |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Interim Contractor Support       |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Installation of Hardware         |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| FY 1996 & Prior Eqpt -- Kits     | 1421              | 6.8  | 458     | 2.2 | 333     | 1.6 | 223     | 0.9 |         |     |         |     |         |     |         |     |     |    | 2435  | 11.5 |               |  |
| FY 1997 Eqpt -- Kits             |                   |      |         |     |         |     | 333     | 1.4 |         |     |         |     |         |     |         |     |     |    | 333   | 1.4  |               |  |
| FY 1998 Eqpt -- Kits             |                   |      |         |     |         |     | 333     | 1.4 |         |     |         |     |         |     |         |     |     |    | 333   | 1.4  |               |  |
| FY 1999 Eqpt -- Kits             |                   |      |         |     |         |     |         |     | 333     | 0.6 |         |     |         |     |         |     |     |    | 333   | 0.6  |               |  |
| FY 2000 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     | 333     | 0.3 |         |     |         |     |     |    | 333   | 0.3  |               |  |
| FY 2001 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |     | 333     | 0.3 |         |     |     |    | 333   | 0.3  |               |  |
| FY 2002 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |     |         |     | 308     | 0.3 |     |    | 308   | 0.3  |               |  |
| FY 2003 Eqpt -- kits             |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| TC Equip-Kits                    |                   |      |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |   |      |               |  |
| Total Installment                | 1421              | 6.8  | 458     | 2.2 | 333     | 1.6 | 889     | 3.7 | 333     | 0.6 | 333     | 0.3 | 333     | 0.3 | 308     | 0.3 |     |    | 4408  | 15.8 |               |  |
| Total Procurement Cos            |                   | 13.7 |         | 2.7 |         | 2.1 |         | 4.2 |         | 1.1 |         | 0.8 |         | 0.6 |         | 0.3 |     |    |   | 25.5 |               |  |

| INDIVIDUAL MODIFICATION   |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     | Date          |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---|---------|-----|-----|-----|---------|-----|-----|-----|---------|----------------|-----|-----|---------|-----|---------------------|---------------|-------------|--------|-----|-------|---------|--|--|--|---------|--|--|--|---------|--|--|--|---------|--|--|--|-------------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---|---|---|---|---|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|----------------|-----|-----|-----|-----|---------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|----|--|----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|   |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     | February 1998 |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MODIFICATION TITLE: Live Fire Category B (LFCB) [MOD 8] 1-94-05-4481  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 81 TOTAL RQMT = 4408  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DESCRIPTION / JUSTIFICATION:<br><br>Live Fire Category B includes the following individual modifications: [1.] Improved Gunner's Station [2.] Smoke Generator Fuel Line and [3.] Turret Ammunition Door Locking Mechanism. Each of these modifications corrects a vehicle deficiency found during Live Fire testing. These modifications are planned for concurrent procurement and application as a portion of B G.  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|   |         |     |     |     |         |     |     |     |         | <u>PLANNED</u> |     |     |         |     | <u>ACCOMPLISHED</u> |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Critical Design Review  |         |     |     |     |         |     |     |     |         | - - - - - 4Q93 |     |     |         |     | 4Q93                |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| IPR Production Decision   |         |     |     |     |         |     |     |     |         | - - - - - 4Q93 |     |     |         |     | 4Q93                |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Development Test & Eval.  |         |     |     |     |         |     |     |     |         | - - - - - 1Q94 |     |     |         |     | 1Q94                |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| TDP Available   |         |     |     |     |         |     |     |     |         | - - - - - 2Q94 |     |     |         |     | 4Q94                |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Installation Schedule:  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Pr Yr</th> <th colspan="4">FY 1997</th> <th colspan="4">FY 1998</th> <th colspan="4">FY 1999</th> <th colspan="4">FY 2000</th> <th colspan="4">FY 2001</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Totals</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td><b>Inputs</b></td> <td>2010</td><td>241</td><td>242</td><td>242</td><td>242</td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>101</td><td>101</td><td>17</td><td></td> </tr> <tr> <td><b>Outputs</b></td> <td>1058</td><td>238</td><td>238</td><td>238</td><td>238</td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>101</td><td>101</td><td>101</td><td>101</td> </tr> </tbody> </table> |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     | Pr Yr | FY 1997 |  |  |  | FY 1998 |  |  |  | FY 1999 |  |  |  | FY 2000 |  |  |  | FY 2001     |        |   |   | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3             | 4 | 1 | 2 | 3 | 4 | <b>Totals</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     | <b>Inputs</b> | 2010 | 241 | 242 | 242 | 242 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101  | 101 | 101 | 101 | 17 |  | <b>Outputs</b> | 1058 | 238 | 238 | 238 | 238 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 | 101 |
| Pr Yr   | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999 |                |     |     | FY 2000 |     |                     |               | FY 2001     |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|   | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1       | 2              | 3   | 4   | 1       | 2   | 3                   | 4             | 1           | 2      | 3   | 4     |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <b>Totals</b>   |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <b>Inputs</b>   | 2010    | 241 | 242 | 242 | 242     | 101 | 101 | 101 | 101     | 101            | 101 | 101 | 101     | 101 | 101                 | 101           | 101         | 101    | 101 | 17    |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <b>Outputs</b>  | 1058    | 238 | 238 | 238 | 238     | 101 | 101 | 101 | 101     | 101            | 101 | 101 | 101     | 101 | 101                 | 101           | 101         | 101    | 101 | 101   | 101     |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">FY 2002</th> <th colspan="4">FY 2003</th> <th colspan="4">FY 2004</th> <th colspan="4">FY 2005</th> <th rowspan="2">To Complete</th> <th rowspan="2">Totals</th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td><b>Inputs</b></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>4408</td> </tr> <tr> <td><b>Outputs</b></td> <td>101</td><td>101</td><td>101</td><td>101</td> <td>95</td><td>95</td><td>94</td><td>94</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> <td>4408</td> </tr> </tbody> </table>  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       | FY 2002 |  |  |  | FY 2003 |  |  |  | FY 2004 |  |  |  | FY 2005 |  |  |  | To Complete | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | <b>Inputs</b> |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4408 | <b>Outputs</b> | 101 | 101 | 101 | 101 | 95            | 95   | 94  | 94  |     |     |     |     |     |     |     |     |     |     |     |     | 4408 |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|   | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004 |                |     |     | FY 2005 |     |                     |               | To Complete | Totals |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|   | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1       | 2              | 3   | 4   | 1       | 2   | 3                   | 4             |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <b>Inputs</b>   |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       | 4408    |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <b>Outputs</b>  | 101     | 101 | 101 | 101 | 95      | 95  | 94  | 94  |         |                |     |     |         |     |                     |               |             |        |     |       | 4408    |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| METHOD OF IMPLEMENTATION: Depot Field Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 5 Months   |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Contract Dates: FY 1997 JUL 97 FY 1998 JUL 98 FY 1999 JUL 99  |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Delivery Date: FY 1997 DEC 97 FY 1998 DEC 98 FY 1999 DEC 99   |         |     |     |     |         |     |     |     |         |                |     |     |         |     |                     |               |             |        |     |       |         |  |  |  |         |  |  |  |         |  |  |  |         |  |  |  |             |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |   |   |   |   |   |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |      |                |     |     |     |     |               |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |    |  |                |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Live Fire Category B (LFCB) [MOD 8] 1-94-05-4481

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |    | TOTAL |      |     |
|---------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|------|-----|
|                                 | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| PROCUREMENT                     |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Kit Quantity                    | 2010              |     | 967     |     | 404     |     | 404     |     | 404     |     | 219     |     |         |     |         |     |     |    |       | 4408 |     |
| Installation Kits               |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Installation Kits, Nonrecurring |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Equipment                       |                   | 0.8 |         | 0.4 |         | 0.2 |         | 0.2 |         | 0.2 |         | 0.1 |         |     |         |     |     |    |       |      | 1.9 |
| Equipment, Nonrecurring         |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Engineering Change Orders       |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Data                            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Training Equipment              |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Support Equipment               |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Other                           |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Interim Contractor Support      |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Installation of Hardware        |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    | 1058              | 1.6 | 952     | 1.4 |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       | 2010 | 3.0 |
| FY 1997 Eqpt -- Kits            |                   |     |         |     | 404     | 0.6 | 404     | 0.6 | 159     | 0.2 |         |     |         |     |         |     |     |    |       | 967  | 1.4 |
| FY 1998 Eqpt -- Kits            |                   |     |         |     |         |     |         |     | 245     | 0.4 | 159     | 0.2 |         |     |         |     |     |    |       | 404  | 0.6 |
| FY 1999 Eqpt -- Kits            |                   |     |         |     |         |     |         |     |         |     | 245     | 0.4 | 159     | 0.3 |         |     |     |    |       | 404  | 0.7 |
| FY 2000 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |     | 245     | 0.4 | 159     | 0.2 |     |    |       | 404  | 0.6 |
| FY 2001 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     | 219     | 0.4 |     |    |       | 219  | 0.4 |
| FY 2002 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| TC Equip-Kits                   |                   |     |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |      |     |
| Total Installment               | 1058              | 1.6 | 952     | 1.4 | 404     | 0.6 | 404     | 0.6 | 404     | 0.6 | 404     | 0.6 | 404     | 0.7 | 378     | 0.6 |     |    |       | 4408 | 6.7 |
| Total Procurement Cos           |                   | 2.4 |         | 1.8 |         | 0.8 |         | 0.8 |         | 0.8 |         | 0.7 |         | 0.7 |         | 0.6 |     |    |       |      | 8.6 |

| INDIVIDUAL MODIFICATION   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     | Date | February 1998 |                     |   |   |
|---|--------|---------|-----|-----|-----|---------|-----|-----|-----|----------------|-----|-----|-----|---------|-----|-----|------|---------------|---------------------|---|---|
| MODIFICATION TITLE: Driver's Viewer Quick Release (DVQR) [MOD 9] 1-92-05-4427   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 181 TOTAL RQMT = 4508   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Driver's Night Viewer Quick Release (DVQR) is a modification to the Driver's Night Viewer Periscope Retainer. It Provides a more positive locking feature which will preclude inadvertent release of the periscope from its operating position. Its primary purpose is to prevent the Viewer/Periscope from falling into the driver's lap when it is moved out of the driver's way as he exits the vehicle precluding injury to the driver as well as damage to the periscope. Because of its potential importance in emergency driver egress this modification has a secondary safety designation. It is however, primarily an operational Improvement.</p> |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     | <u>PLANNED</u> |     |     |     |         |     |     |      |               | <u>ACCOMPLISHED</u> |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| Installation Schedule:  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
|   | Pr Yr  | FY 1997 |     |     |     | FY 1998 |     |     |     | FY 1999        |     |     |     | FY 2000 |     |     |      | FY 2001       |                     |   |   |
|   | Totals | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1       | 2   | 3   | 4    | 1             | 2                   | 3 | 4 |
| <b>Inputs</b>   | 1505   | 227     | 228 | 228 | 228 | 261     | 261 | 262 | 262 | 261            | 261 | 262 | 262 |         |     |     |      |               |                     |   |   |
| <b>Outputs</b>  | 785    | 180     | 180 | 180 | 180 | 227     | 228 | 228 | 228 | 261            | 261 | 262 | 262 | 261     | 261 | 262 | 262  |               |                     |   |   |
|   |        | FY 2002 |     |     |     | FY 2003 |     |     |     | FY 2004        |     |     |     | FY 2005 |     |     |      | To            | Totals              |   |   |
|   |        | 1       | 2   | 3   | 4   | 1       | 2   | 3   | 4   | 1              | 2   | 3   | 4   | 1       | 2   | 3   | 4    | Complete      |                     |   |   |
| <b>Inputs</b>   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               | 4508                |   |   |
| <b>Outputs</b>  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               | 4508                |   |   |
| METHOD OF IMPLEMENTATION: Depot Field Teams ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| Contract Dates: FY 1997 OCT 96 FY 1998 OCT 97 FY 1999 OCT 98  |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |
| Delivery Date: FY 1997 DEC 96 FY 1998 DEC 97 FY 1999 DEC 98   |        |         |     |     |     |         |     |     |     |                |     |     |     |         |     |     |      |               |                     |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Driver's Viewer Quick Release (DVQR) [MOD 9] 1-92-05-4427

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|                                 | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                     |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                    | 1505              |     | 911     |     | 1046    |     | 1046    |     |         |     |         |    |         |    |         |    |     |    |       | 4508 |     |
| Installation Kits               |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits, Nonrecurring |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Equipment                       |                   | 0.2 |         | 0.1 |         | 0.1 |         | 0.1 |         |     |         |    |         |    |         |    |     |    |       |      | 0.5 |
| Equipment, Nonrecurring         |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders       |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Data                            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment              |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment               |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Other                           |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support      |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware        |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    | 785               | 0.1 | 720     | 0.1 |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       | 1505 | 0.2 |
| FY 1997 Eqpt -- Kits            |                   |     |         |     | 911     | 0.2 |         |     |         |     |         |    |         |    |         |    |     |    |       | 911  | 0.2 |
| FY 1998 Eqpt -- Kits            |                   |     |         |     |         |     | 1046    | 0.2 |         |     |         |    |         |    |         |    |     |    |       | 1046 | 0.2 |
| FY 1999 Eqpt -- Kits            |                   |     |         |     |         |     |         |     | 1046    | 0.2 |         |    |         |    |         |    |     |    |       | 1046 | 0.2 |
| FY 2000 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                   |                   |     |         |     |         |     |         |     |         |     |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment               | 785               | 0.1 | 720     | 0.1 | 911     | 0.2 | 1046    | 0.2 | 1046    | 0.2 |         |    |         |    |         |    |     |    |       | 4508 | 0.8 |
| Total Procurement Cos           |                   | 0.3 |         | 0.2 |         | 0.3 |         | 0.3 |         | 0.2 |         |    |         |    |         |    |     |    |       |      | 1.3 |

| INDIVIDUAL MODIFICATION  |  |                |    |    |    |                |    |    |    | Date                              |    | February 1998 |    |         |                               |    |   |          |   |        |   |
|--|--|----------------|----|----|----|----------------|----|----|----|-----------------------------------|----|---------------|----|---------|-------------------------------|----|---|----------|---|--------|---|
| MODIFICATION TITLE: Pulse - Jet System (PJS) [MOD 10] 1-92-05-4475   |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 228 TOTAL RQMT = 4555  |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><p>The Pulse - Jet System (PJS) replaces a large portion of the current engine air filtration system. The purpose of PJS is to extend the time between required air path servicing in any severe dust environment. The current system requires frequent servicing in such an environment which can introduce dust into the clean air path as each servicing requires that the path is broken in order to complete the service. PJS greatly reduces the number of times the clean air path requires servicing. The result is improved combat performance and reduced O&amp;S costs. PJS was identified as user priority number one by Abrams units involved in Operation Desert Storm (ODS). NOTE: 180ea additional PJS Kits were procured using FY97 DBOF OSCR (O &amp; S Cost Rediction) funds. This procurement is NOT a part of the Abrams tank MOD Line procurements but the 180 are being installed using MOD Line \$\$\$, thus total procured will be 180 less than the total installed.</p> |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                |    |    |    |                |    |    |    | <u>PLANNED</u>                    |    |               |    |         | <u>ACCOMPLISHED</u>           |    |   |          |   |        |   |
| Preliminary Design Review  |  |                |    |    |    |                |    |    |    | - - - - - 2Q92                    |    |               |    |         | 2Q92                          |    |   |          |   |        |   |
| Critical Design Review   |  |                |    |    |    |                |    |    |    | - - - - - 3Q92                    |    |               |    |         | 3Q92                          |    |   |          |   |        |   |
| Contractor Test & Eval.  |  |                |    |    |    |                |    |    |    | - - - - - 3Q93                    |    |               |    |         | 3Q93                          |    |   |          |   |        |   |
| Development Test & Eval.   |  |                |    |    |    |                |    |    |    | - - - - - 3Q93                    |    |               |    |         | 3Q93                          |    |   |          |   |        |   |
| Initial Operational Test & Eval.   |  |                |    |    |    |                |    |    |    | - - - - - 4Q93                    |    |               |    |         | 4Q93                          |    |   |          |   |        |   |
| IPR Production Decision  |  |                |    |    |    |                |    |    |    | - - - - - 4Q93                    |    |               |    |         | 4Q93                          |    |   |          |   |        |   |
| TDP Available  |  |                |    |    |    |                |    |    |    | - - - - - 2Q96                    |    |               |    |         | 2Q96                          |    |   |          |   |        |   |
| Installation Schedule:   |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   |          |   |        |   |
| Pr Yr  |  | FY 1997        |    |    |    | FY 1998        |    |    |    | FY 1999                           |    |               |    | FY 2000 |                               |    |   | FY 2001  |   |        |   |
| Totals   |  | 1              | 2  | 3  | 4  | 1              | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>  |  | 543            | 36 | 36 | 36 | 36             | 9  |    |    | 75                                | 75 | 74            | 74 | 74      | 74                            | 41 |   |          |   |        |   |
| <b>Outputs</b>   |  | 17             | 57 | 57 | 57 | 45             | 45 | 45 | 45 | 75                                | 75 | 74            | 74 | 74      | 74                            | 41 |   |          |   |        |   |
|  |  | FY 2002        |    |    |    | FY 2003        |    |    |    | FY 2004                           |    |               |    | FY 2005 |                               |    |   | To       |   | Totals |   |
|  |  | 1              | 2  | 3  | 4  | 1              | 2  | 3  | 4  | 1                                 | 2  | 3             | 4  | 1       | 2                             | 3  | 4 | Complete |   |        |   |
| <b>Inputs</b>  |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   | 3643     |   | 4375   |   |
| <b>Outputs</b>   |  |                |    |    |    |                |    |    |    |                                   |    |               |    |         |                               |    |   | 3643     |   | 4555   |   |
| METHOD OF IMPLEMENTATION: Contractor Teams   |  |                |    |    |    |                |    |    |    | ADMINISTRATIVE LEADTIME: 3 Months |    |               |    |         | PRODUCTION LEADTIME: 8 Months |    |   |          |   |        |   |
| Contract Dates:  |  | FY 1997 DEC 97 |    |    |    | FY 1998 FEB 98 |    |    |    | FY 1999 FEB 99                    |    |               |    |         |                               |    |   |          |   |        |   |
| Delivery Date:   |  | FY 1997 APR 98 |    |    |    | FY 1998 OCT 98 |    |    |    | FY 1999 OCT 99                    |    |               |    |         |                               |    |   |          |   |        |   |

| INDIVIDUAL MODIFICATION                         |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Date   |       | February 1998 |      |       |
|---|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|--|-------|---------------|------|-------|
| MODIFICATION TITLE (Cont):                      |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | Pulse - Jet System (PJS) [MOD 10] 1-92-05-4475 |       |               |      |       |
| FINANCIAL PLAN: (\$ in Millions)                |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
|   | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |       | TOTAL         |      |       |
|   | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$    | Qty           | \$   |       |
| RDT&E   |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| PROCUREMENT                                     |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Kit Quantity                                    | 543               |      | 144     |     | 45      |     |         |     |         |     |         |    |         |    |         |    | 3643   |       | 4375          |      |       |
| Installation Kits                               |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Installation Kits, Nonrecurring                 |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Equipment                                       |                   | 24.6 |         | 6.7 |         | 2.1 |         |     |         |     |         |    |         |    |         |    |  | 253.2 |               |      | 286.6 |
| Equipment, Nonrecurring                         |                   | 0.6  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      | 0.6   |
| Engineering Change Orders                       |                   | 1.0  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      | 1.0   |
| Testing   |                   | 0.9  |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      | 0.9   |
| Training Equipment                              |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Support Equipment                               |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Other   |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| * + 180ea Procurred with DBOF OSCR Funds.       |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| ** 228 installed in CY97 using prior year funds |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| Installation of Hardware                        |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 1996 & Prior Eqpt -- Kits                    | 17                | 1.9  | 228     | **  | 180     | 1.4 | 118     | 0.9 |         |     |         |    |         |    |         |    |  |       |               | 543  | 4.2   |
| FY 1997 Eqpt -- Kits                            |                   |      |         |     |         |     | 144     | 1.2 |         |     |         |    |         |    |         |    |  |       |               | 144  | 1.2   |
| FY 1998 Eqpt -- Kits                            |                   |      |         |     |         |     | 36      | 0.3 | 189     | 1.5 |         |    |         |    |         |    |  |       |               | 225  | 1.8   |
| FY 1999 Eqpt -- Kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2000 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2001 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2002 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| FY 2003 Eqpt -- kits                            |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    |  |       |               |      |       |
| TC Equip -- 3643 Kits                           |                   |      |         |     |         |     |         |     |         |     |         |    |         |    |         |    | 3643   | 43.7  | 3643          | 43.7 |       |
| Total Installment                               | 17                | 1.9  | 228     |     | 180     | 1.4 | 298     | 2.4 | 189     | 1.5 |         |    |         |    |         |    | 3643   | 43.7  | 4555          | 50.9 |       |
| Total Procurement Cos                           |                   | 29.0 |         | 6.7 |         | 3.5 |         | 2.4 |         | 1.5 |         |    |         |    |         |    |  | 296.9 |               |      | 340.0 |

| INDIVIDUAL MODIFICATION   |  |               |     |     |     |               |     |     |     | Date                              |   | February 1998 |   |         |                               |   |   |          |   |        |   |
|---|--|---------------|-----|-----|-----|---------------|-----|-----|-----|-----------------------------------|---|---------------|---|---------|-------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Mounted Water Ration Heater (MWRH) [MOD 11] 1-92-05-4426  |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1501, M1A2 = 0 TOTAL RQMT = 1501   |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:  |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| <p>The purpose of the Mounted Water Ration Heater (MWRH) is to provide the Abrams tank crew with the internal capability to heat water and rations during extended field operations without having to exit from the protection of the vehicle.</p> <p>NOTE: ATCOM / PM SOLDIER procured the MWRH. Abrams tank funds / data found herein are for the integration kit and installation only. Integration Kit is being fabricated by Anniston Army Depot (ANAD) so there is no Hardware Contract. Installation will also be by ANAD.</p> |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |     |     |     |               |     |     |     | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |   |   |          |   |        |   |
| Preliminary Design Review   |  |               |     |     |     |               |     |     |     | - - - - - 4Q92                    |   |               |   |         | 4Q92                          |   |   |          |   |        |   |
| Critical Design Review  |  |               |     |     |     |               |     |     |     | - - - - - 1Q93                    |   |               |   |         | 1Q93                          |   |   |          |   |        |   |
| Contractor Test & Eval.   |  |               |     |     |     |               |     |     |     | - - - - - 1Q93                    |   |               |   |         | 1Q93                          |   |   |          |   |        |   |
| Development Test & Eval.  |  |               |     |     |     |               |     |     |     | - - - - - 3Q93                    |   |               |   |         | 3Q93                          |   |   |          |   |        |   |
| Initial Operational Test & Eval.  |  |               |     |     |     |               |     |     |     | - - - - - 3Q93                    |   |               |   |         | 3Q93                          |   |   |          |   |        |   |
| IPR Production Decision   |  |               |     |     |     |               |     |     |     | - - - - - 2Q95                    |   |               |   |         | 4Q95                          |   |   |          |   |        |   |
| TDP Available   |  |               |     |     |     |               |     |     |     | - - - - - 1Q96                    |   |               |   |         | 1Q96                          |   |   |          |   |        |   |
| Installation Schedule:  |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997       |     |     |     | FY 1998       |     |     |     | FY 1999                           |   |               |   | FY 2000 |                               |   |   | FY 2001  |   |        |   |
| Totals  |  | 1             | 2   | 3   | 4   | 1             | 2   | 3   | 4   | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>   |  | 1501          |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| <b>Outputs</b>  |  | 187           | 187 | 188 | 188 | 188           | 188 | 188 | 187 |                                   |   |               |   |         |                               |   |   |          |   |        |   |
|   |  | FY 2002       |     |     |     | FY 2003       |     |     |     | FY 2004                           |   |               |   | FY 2005 |                               |   |   | To       |   | Totals |   |
|   |  | 1             | 2   | 3   | 4   | 1             | 2   | 3   | 4   | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>   |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   | 1501   |   |
| <b>Outputs</b>  |  |               |     |     |     |               |     |     |     |                                   |   |               |   |         |                               |   |   |          |   | 1501   |   |
| METHOD OF IMPLEMENTATION: Depot Teams   |  |               |     |     |     |               |     |     |     | ADMINISTRATIVE LEADTIME: 3 Months |   |               |   |         | PRODUCTION LEADTIME: 3 Months |   |   |          |   |        |   |
| Contract Dates:   |  | FY 1997 N / A |     |     |     | FY 1998 N / A |     |     |     | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 N / A |     |     |     | FY 1998 N / A |     |     |     | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Mounted Water Ration Heater (MWRH) [MOD 11] 1-92-05-4426

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |     | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---|-------------------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|   | Qty               | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                               |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                              | 1501              |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       | 1501 |     |
| Installation Kits                         |                   | 1.9 |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 1.9 |
| Installation Kits, Nonrecurring Equipment |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment, Nonrecurring                   |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders                 |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data                                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment                        |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment                         |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other                                     |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support                |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware                  |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits              |                   |     | 750     | 0.1 | 751     | 0.1 |         |    |         |    |         |    |         |    |         |    |     |    |       | 1501 | 0.2 |
| FY 1997 Eqpt -- Kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1999 Eqpt -- Kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits                      |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                             |                   |     |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment                         |                   |     | 750     | 0.1 | 751     | 0.1 |         |    |         |    |         |    |         |    |         |    |     |    |       | 1501 | 0.2 |
| Total Procurement Cos                     |                   | 1.9 |         | 0.1 |         | 0.1 |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 2.1 |

| INDIVIDUAL MODIFICATION  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | Date                              |          |   |        | February 1998                  |  |  |  |      |  |  |  |
|--|--|---------------|----|----|----|---------------|----|----|----|---------------|---|---|---|---------|---|---|-----------------------------------|----------|---|--------|--------------------------------|--|--|--|------|--|--|--|
| MODIFICATION TITLE: System Enhancement Package (SEP) [MOD 12] 1-96-05-4505   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 0, M1A2 = 627 TOTAL RQMT = 627  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The System Enhancement Package (SEP) consists of M1A2 hardware and software changes which support the US Army's "Digitization of the Battlefield" effort. This effort upgrades the M1A2 electronics suite with improved processors, increased me and software partitioning necessary for the M1A2 to operate in the Army's planned common operating environment and adds second generation thermal imaging capabilities to the Commander's Independent Thermal Viewer (CITV) and Gunner's Primary Sight (GPS) which are designed to significantly increase the capabilities of these Fire-Control sub-systems. This upgrade also allow future growth without significant changes to the vehicle architecture so that insertion of future technology may be facilitated. These changes are designed to be exportable to other Abrams platforms, meet Army requirements for joint interoperability with Combined Arms Command &amp; Control Systems and maximize commonality with other Ground Combat systems. For this effort procurement funds will include installation costs.</p> |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | <u>PLANNED</u>                    |          |   |        | <u>ACCOMPLISHED</u>            |  |  |  |      |  |  |  |
| Preliminary Design Review  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 3Q95                           |  |  |  | 3Q95 |  |  |  |
| Critical Design Review   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 2Q97                           |  |  |  | 3Q97 |  |  |  |
| Contractor Test & Eval.  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 3Q98                           |  |  |  |      |  |  |  |
| Development Test & Eval.   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 1Q99                           |  |  |  |      |  |  |  |
| Initial Operational Test & Eval.   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 2Q99                           |  |  |  |      |  |  |  |
| IPR Production Decision  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 2Q99                           |  |  |  |      |  |  |  |
| TDP Available  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | -                                 |          |   |        | 4Q99                           |  |  |  |      |  |  |  |
| Installation Schedule:   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| Pr Yr  |  | FY 1997       |    |    |    | FY 1998       |    |    |    | FY 1999       |   |   |   | FY 2000 |   |   |                                   | FY 2001  |   |        |                                |  |  |  |      |  |  |  |
| Totals   |  | 1             | 2  | 3  | 4  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1       | 2 | 3 | 4                                 | 1        | 2 | 3      | 4                              |  |  |  |      |  |  |  |
| <b>Inputs</b>  |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   | 10     | 15                             |  |  |  |      |  |  |  |
| <b>Outputs</b>   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
|  |  | FY 2002       |    |    |    | FY 2003       |    |    |    | FY 2004       |   |   |   | FY 2005 |   |   |                                   | To       |   | Totals |                                |  |  |  |      |  |  |  |
|  |  | 1             | 2  | 3  | 4  | 1             | 2  | 3  | 4  | 1             | 2 | 3 | 4 | 1       | 2 | 3 | 4                                 | Complete |   |        |                                |  |  |  |      |  |  |  |
| <b>Inputs</b>  |  | 11            | 11 | 11 | 12 | 16            | 16 | 16 | 17 |               |   |   |   |         |   |   |                                   | 492      |   | 627    |                                |  |  |  |      |  |  |  |
| <b>Outputs</b>   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| METHOD OF IMPLEMENTATION: Contractor Teams   |  |               |    |    |    |               |    |    |    |               |   |   |   |         |   |   | ADMINISTRATIVE LEADTIME: 6 Months |          |   |        | PRODUCTION LEADTIME: 10 Months |  |  |  |      |  |  |  |
| Contract Dates:  |  | FY 1997 N / A |    |    |    | FY 1998 N / A |    |    |    | FY 1999 N / A |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |
| Delivery Date:   |  | FY 1997 N / A |    |    |    | FY 1998 N / A |    |    |    | FY 1999 N / A |   |   |   |         |   |   |                                   |          |   |        |                                |  |  |  |      |  |  |  |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): System Enhancement Package (SEP) [MOD 12] 1-96-05-4505

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |      | FY 2002 |      | FY 2003 |       | TC    |       | TOTAL |       |  |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|------|---------|------|---------|-------|-------|-------|-------|-------|--|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$   | Qty     | \$   | Qty     | \$    | Qty   | \$    | Qty   | \$    |  |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    | 25      |      | 45      |      | 65      |       | 492   |       | 627   |       |  |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         | 46.5 |         | 82.8 |         | 107.4 |       | 655.5 |       | 892.2 |  |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    | 2.9     |    |         |      |         |      |         |       |       |       |       | 2.9   |  |
| Data                            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |      |         |      |         |       |       |       |       |       |  |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    | 2.9     |    | 46.5    |      | 82.8    |      | 107.4   |       | 655.5 |       |       | 895.1 |  |

| INDIVIDUAL MODIFICATION   |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |   |         |                               |   |   |          |   |        |   |
|---|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|---|---------|-------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Embedded Battle Command (EBC) [MOD 13] 1-96-05-4516   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1A2  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>Embedded Battle Command (EBC) is a part of Horizontal Battlefield Digitization (HBD). EBC is an annual software "drop" into each fielded M1A2 tank. There is no hardware associated with this modification. The purpose of EBC is to assure that all M1A2's have up - to - date and identical computer software with the latest State - of - the - Art changes installed on a regular b. There is no delivery or installation schedule in the normal sense of these terms. Each fielded M1A2 will have its onboard computers upgraded every year. |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |   |   |          |   |        |   |
| Preliminary Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 2Q97                    |   |               |   |         | 3Q97                          |   |   |          |   |        |   |
| Critical Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 3Q97                    |   |               |   |         | 4Q97                          |   |   |          |   |        |   |
| Contractor Test & Eval.   |  |               |   |   |   |               |   |   |   | - - - - - 1Q98                    |   |               |   |         | 1Q98                          |   |   |          |   |        |   |
| Development Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 3Q98                    |   |               |   |         |                               |   |   |          |   |        |   |
| Initial Operational Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |   |         |                               |   |   |          |   |        |   |
| IPR Production Decision   |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |   |         |                               |   |   |          |   |        |   |
| Installation Schedule:  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Pr Yr   |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |   | FY 2000 |                               |   |   | FY 2001  |   |        |   |
| Totals  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | 1        | 2 | 3      | 4 |
| Inputs N / A  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Outputs N / A   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
|   |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |   | FY 2005 |                               |   |   | To       |   | Totals |   |
|   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | Complete |   |        |   |
| Inputs N / A  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| Outputs N / A   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION: Fld Svc Rep Inst  |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 1 Months |   |               |   |         | PRODUCTION LEADTIME: 8 Months |   |   |          |   |        |   |
| Contract Dates:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |        |   |
| Delivery Date:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N / A                     |   |               |   |         |                               |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Embedded Battle Command (EBC) [MOD 13] 1-96-05-4516

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |     | TOTAL |     |  |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|-----|-------|-----|--|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$  | Qty   | \$  |  |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Kit Quantity                    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Equipment                       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Data (Software Only)            |                   |    |         |    |         |    |         |    | 1.0     |    | 1.0     |    | 1.1     |    | 1.0     |    |     | 5.5 |       | 9.6 |  |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Other                           |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Total Installment               |                   |    |         |    |         |    |         |    |         |    |         |    |         |    |         |    |     |     |       |     |  |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    | 1.0     |    | 1.0     |    | 1.1     |    | 1.0     |    |     | 5.5 |       | 9.6 |  |

| INDIVIDUAL MODIFICATION  |  |                |   |   |   |               |     |     |     | Date                              |   | February 1998 |   |         |                               |        |          |         |      |   |   |  |  |  |
|--|--|----------------|---|---|---|---------------|-----|-----|-----|-----------------------------------|---|---------------|---|---------|-------------------------------|--------|----------|---------|------|---|---|--|--|--|
| MODIFICATION TITLE: External Auxiliary Pwr Unit (EAPU) [MOD 14] 1-85-05-4057   |  |                |   |   |   |               |     |     |     |                                   |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1836, M1A2 = 0 TOTAL RQMT = 183   |  |                |   |   |   |               |     |     |     |                                   |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| DESCRIPTION / JUSTIFICATION:<br><p>The current use of the Abrams Tank in stationary night defensive position, known as Silent Watch Mode, requires long duration idling of the AGT - 1500 vehicle main engine in order to generate the required electricity. The External Auxiliary Power Unit (EAPU) will provide power for this type of requirement at greatly reduced fuel usage and without main engine wear. The EAPU continuously delivers 2.2 KW of power at 28 Volts DC. The EAPU will be mounted in the left side of the turret bustle rack will be fully integrated with the tank electrical systems. The EAPU has its own fuel supply and can provide power for 10 tc hours on one tank - full of diesel fuel. The Army is procuring an additional 336 EAPUs as a result of an FY97 Congressional plus-up. The EAPU will be used with the M1A2s until they are retrofitted with SEP (including the Under Armor EAPU).</p> |  |                |   |   |   |               |     |     |     |                                   |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                |   |   |   |               |     |     |     | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |        |          |         |      |   |   |  |  |  |
| Preliminary Design Review  |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      | ** This is a re-buy of an item las procured in FY 92. |   |  |  |  |
| Critical Design Review   |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      |   |   |  |  |  |
| Contractor Test & Eval.  |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      |   |   |  |  |  |
| Development Test & Eval.   |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      |   |   |  |  |  |
| Initial Operational Test & Eval.   |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      |   |   |  |  |  |
| IPR Production Decision  |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      |   |   |  |  |  |
| T D P Available  |  |                |   |   |   |               |     |     |     | - - - - -                         |   |               |   |         | N / A **                      |        |          |         |      |   |   |  |  |  |
| Installation Schedule:   |  |                |   |   |   |               |     |     |     |                                   |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| Pr Yr  |  | FY 1997        |   |   |   | FY 1998       |     |     |     | FY 1999                           |   |               |   | FY 2000 |                               |        |          | FY 2001 |      |   |   |  |  |  |
| Totals   |  | 1              | 2 | 3 | 4 | 1             | 2   | 3   | 4   | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3      | 4        | 1       | 2    | 3   | 4 |  |  |  |
| <b>Inputs</b>  |  |                |   |   |   |               | 40  | 104 | 104 | 88                                |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| <b>Outputs</b>   |  |                |   |   |   | 36            | 100 | 100 | 100 |                                   |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| FY 2002  |  | FY 2003        |   |   |   | FY 2004       |     |     |     | FY 2005                           |   |               |   | To      |                               | Totals |          |         |      |   |   |  |  |  |
| 1  |  | 2              | 3 | 4 | 1 | 2             | 3   | 4   | 1   | 2                                 | 3 | 4             | 1 | 2       | 3                             | 4      | Complete |         |      |   |   |  |  |  |
| <b>Inputs</b>  |  |                |   |   |   |               |     |     |     |                                   |   |               |   |         |                               |        |          | 1164    | 1500 |   |   |  |  |  |
| <b>Outputs</b>   |  |                |   |   |   |               |     |     |     |                                   |   |               |   |         |                               |        |          | 1164    | 1500 |   |   |  |  |  |
| METHOD OF IMPLEMENTATION: Contr./Depot Teams   |  |                |   |   |   |               |     |     |     | ADMINISTRATIVE LEADTIME: 4 Months |   |               |   |         | PRODUCTION LEADTIME: 6 Months |        |          |         |      |   |   |  |  |  |
| Contract Dates:  |  | FY 1997 SEP 97 |   |   |   | FY 1998 N / A |     |     |     | FY 1999 N / A                     |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |
| Delivery Date:   |  | FY 1997 MAR 98 |   |   |   | FY 1998 N / A |     |     |     | FY 1999 N / A                     |   |               |   |         |                               |        |          |         |      |   |   |  |  |  |

| INDIVIDUAL MODIFICATION          |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | Date   |      | February 1998 |      |      |
|----------------------------------|-------------------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|--|------|---------------|------|------|
| MODIFICATION TITLE (Cont):       |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | External Auxiliary Pwr Unit (EAPU) [MOD 14] 1-85-05-4057 |      |               |      |      |
| FINANCIAL PLAN: (\$ in Millions) |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
|                                  | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |      | TOTAL         |      |      |
|                                  | Qty               | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$   | Qty           | \$   |      |
| RDT&E                            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| PROCUREMENT                      |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Kit Quantity                     |                   |    | 336     |    |         |     |         |    |         |    |         |    |         |    |         |    | 1164   |      | 1500          |      |      |
| Installation Kits                |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Installation Kits, Nonrecurring  |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Equipment                        |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Equipment, Nonrecurring          |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Engineering Change Orders        |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Data                             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Training Equipment               |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Support Equipment                |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Other                            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Interim Contractor Support       |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| Installation of Hardware         |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 1996 & Prior Eqpt -- Kits     |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 1997 Eqpt -- Kits             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 1998 Eqpt -- Kits             |                   |    |         |    | 336     | 2.0 |         |    |         |    |         |    |         |    |         |    |  |      |               | 336  | 2.0  |
| FY 1999 Eqpt -- Kits             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 2000 Eqpt -- kits             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 2001 Eqpt -- kits             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 2002 Eqpt -- kits             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| FY 2003 Eqpt -- kits             |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    |  |      |               |      |      |
| TC Equip -- 1164 Kits            |                   |    |         |    |         |     |         |    |         |    |         |    |         |    |         |    | 1164   | 8.2  | 1164          | 8.2  |      |
| Total Installment                |                   |    |         |    | 336     | 2.0 |         |    |         |    |         |    |         |    |         |    | 1164   | 8.2  | 1500          | 10.2 |      |
| Total Procurement Cos            |                   |    |         |    |         | 8.0 |         |    |         |    |         |    |         |    |         |    |  | 40.8 |               |      | 50.8 |

| INDIVIDUAL MODIFICATION  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               | Date          |   |          |   |        |      |
|--|--|----------------|---|---|---|---------------|---|---|-----|-----------------------------------|-----|---|---|---------|-------------------------------|---------------|---|----------|---|--------|------|
|  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               | February 1998 |   |          |   |        |      |
| MODIFICATION TITLE: External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15] 1-97-05-4521  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1500, M1A2 = 0 TOTAL RQMT = 150   |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| DESCRIPTION / JUSTIFICATION:<br>This modification is the Upgrade of 1500ea External Auxiliary Power Units (EAPU's) procured / fielded in FY91 / 94. The upgrade replaces the 12 volt starter with a 24 volt starter, adds an improved voltage regulator and a NATO standard receptacle and remove the 24 volt battery. These changes will increase the reliability and durability of the existing EAPU's. Installation costs for this modification are included in the hardware cost and the prime hardware contractor will also install the modification. |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                |   |   |   |               |   |   |     | <u>PLANNED</u>                    |     |   |   |         | <u>ACCOMPLISHED</u>           |               |   |          |   |        |      |
| Preliminary Design Review  |  |                |   |   |   |               |   |   |     | - - - - - 3Q95                    |     |   |   |         | 3Q95                          |               |   |          |   |        |      |
| Critical Design Review   |  |                |   |   |   |               |   |   |     | - - - - - 2Q96                    |     |   |   |         | 2Q96                          |               |   |          |   |        |      |
| Contractor Test & Eval.  |  |                |   |   |   |               |   |   |     | - - - - - 4Q96                    |     |   |   |         | 4Q96                          |               |   |          |   |        |      |
| Initial Operational Test & Eval.   |  |                |   |   |   |               |   |   |     | - - - - - 2Q97                    |     |   |   |         | 2Q97                          |               |   |          |   |        |      |
| IPR Production Decision  |  |                |   |   |   |               |   |   |     | - - - - - 4Q97                    |     |   |   |         | 4Q97                          |               |   |          |   |        |      |
| T D P Available  |  |                |   |   |   |               |   |   |     | - - - - - 2Q98                    |     |   |   |         |                               |               |   |          |   |        |      |
| Installation Schedule:   |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        |      |
| Pr Yr  |  | FY 1997        |   |   |   | FY 1998       |   |   |     | FY 1999                           |     |   |   | FY 2000 |                               |               |   | FY 2001  |   |        |      |
| Totals   |  | 1              | 2 | 3 | 4 | 1             | 2 | 3 | 4   | 1                                 | 2   | 3 | 4 | 1       | 2                             | 3             | 4 | 1        | 2 | 3      | 4    |
| <b>Inputs</b>  |  |                |   |   |   |               |   |   | 350 | 500                               | 650 |   |   |         |                               |               |   |          |   |        |      |
| <b>Outputs</b>   |  |                |   |   |   |               |   |   |     | 750                               | 750 |   |   |         |                               |               |   |          |   |        |      |
|  |  | FY 2002        |   |   |   | FY 2003       |   |   |     | FY 2004                           |     |   |   | FY 2005 |                               |               |   | To       |   | Totals |      |
|  |  | 1              | 2 | 3 | 4 | 1             | 2 | 3 | 4   | 1                                 | 2   | 3 | 4 | 1       | 2                             | 3             | 4 | Complete |   |        |      |
| <b>Inputs</b>  |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        | 1500 |
| <b>Outputs</b>   |  |                |   |   |   |               |   |   |     |                                   |     |   |   |         |                               |               |   |          |   |        | 1500 |
| METHOD OF IMPLEMENTATION: Contractor Inst.   |  |                |   |   |   |               |   |   |     | ADMINISTRATIVE LEADTIME: 2 Months |     |   |   |         | PRODUCTION LEADTIME: 4 Months |               |   |          |   |        |      |
| Contract Dates:  |  | FY 1997 FEB 98 |   |   |   | FY 1998 N / A |   |   |     | FY 1999 N / A                     |     |   |   |         |                               |               |   |          |   |        |      |
| Delivery Date:   |  | FY 1997 JUN 98 |   |   |   | FY 1998 N / A |   |   |     | FY 1999 N / A                     |     |   |   |         |                               |               |   |          |   |        |      |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): External Auxiliary Pwr Unit Upgrade (EAPUU) [MOD 15] 1-97-05-4521

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |     |
|---------------------------------|-------------------|----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-----|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |     |
| RDT&E                           |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| PROCUREMENT                     |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Kit Quantity                    |                   |    | 1500    |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 1500 |     |
| Installation Kits               |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation Kits, Nonrecurring |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Equipment                       |                   |    |         | 2.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 2.4 |
| Equipment, Nonrecurring         |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Engineering Change Orders       |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Data                            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Training Equipment              |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Support Equipment               |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Other                           |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Interim Contractor Support      |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Installation of Hardware        |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |     | 1500    |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 1500 |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| TC Equip-Kits                   |                   |    |         |     |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      |     |
| Total Installment               |                   |    |         |     | 1500    |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 1500 |     |
| Total Procurement Cos           |                   |    |         | 2.4 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 2.4 |

| INDIVIDUAL MODIFICATION   |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |     |         |                               |     |     |          |     |        |   |
|---|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|-----|---------|-------------------------------|-----|-----|----------|-----|--------|---|
| MODIFICATION TITLE: NBC Fire Warning (NBCFW) [MOD 16] 1-97-05-4524  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 432  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| DESCRIPTION / JUSTIFICATION:<br>The NBC Fire Warning (NBCFW) modification is an NBC (Nuclear, Chemical & Biological) system safety fix. It addresses the problem of NBC system fires caused by overheating. The NBCFW will provide for an audible warning alarm in the crew CVC helmet that sounds when the NBC sponson over-temperature light illuminates. This audible warning will allow tank crews to take the early action necessary to properly deal with an NBC filter fire. Only the M1A1 requires this modification. Earlier models do not have the NBC system on-board and M1A2's are being modified through a software change. |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |     |         | <u>ACCOMPLISHED</u>           |     |     |          |     |        |   |
| Preliminary Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 2Q96                    |   |               |     |         | 3Q96                          |     |     |          |     |        |   |
| Critical Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 3Q97                    |   |               |     |         | 3Q97                          |     |     |          |     |        |   |
| Initial Operational Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 1Q98                    |   |               |     |         | 1Q98                          |     |     |          |     |        |   |
| IPR Production Decision   |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |     |         |                               |     |     |          |     |        |   |
| T D P Available   |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |     |         |                               |     |     |          |     |        |   |
| Installation Schedule:  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     |          |     |        |   |
| Pr Yr   |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |     | FY 2000 |                               |     |     | FY 2001  |     |        |   |
| Totals  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4   | 1       | 2                             | 3   | 4   | 1        | 2   | 3      | 4 |
| <b>Inputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               | 318 | 418     | 418                           | 418 | 418 | 418      | 315 |        |   |
| <b>Outputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |     | 418     | 418                           | 418 | 418 | 370      | 350 | 331    |   |
|   |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |     | FY 2005 |                               |     |     | To       |     | Totals |   |
|   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4   | 1       | 2                             | 3   | 4   | Complete |     |        |   |
| <b>Inputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     | 1604     |     | 4327   |   |
| <b>Outputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |     |         |                               |     |     | 1604     |     | 4327   |   |
| METHOD OF IMPLEMENTATION: Contractor Teams  |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 4 Months |   |               |     |         | PRODUCTION LEADTIME: 8 Months |     |     |          |     |        |   |
| Contract Dates:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 JAN 99                    |   |               |     |         |                               |     |     |          |     |        |   |
| Delivery Date:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 SEP 99                    |   |               |     |         |                               |     |     |          |     |        |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): NBC Fire Warning (NBCFW) [MOD 16] 1-97-05-4524

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |    | FY 2003 |    | TC   |     | TOTAL |      |      |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|------|-----|-------|------|------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty  | \$  | Qty   | \$   |      |
| RDT&E                           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| PROCUREMENT                     |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Kit Quantity                    |                   |    |         |    |         |    | 1672    |     | 1051    |     |         |     |         |    |         |    | 1604 |     | 4327  |      |      |
| Installation Kits               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Equipment                       |                   |    |         |    |         |    |         | 4.1 | 2.6     |     |         |     |         |    |         |    |      | 4.5 |       | 11.2 |      |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Engineering Change Orders       |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Data                            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Training Equipment              |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Support Equipment               |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Other                           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Interim Contractor Support      |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| Installation of Hardware        |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |     | 1672    | 0.7 |         |     |         |    |         |    |      |     | 1672  | 0.7  |      |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     | 1051    | 0.4 |         |    |         |    |      |     | 1051  | 0.4  |      |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    |      |     |       |      |      |
| TC Equip -- 1604 Kits           |                   |    |         |    |         |    |         |     |         |     |         |     |         |    |         |    | 1604 | 0.8 | 1604  | 0.8  |      |
| Total Installment               |                   |    |         |    |         |    |         |     | 1672    | 0.7 | 1051    | 0.4 |         |    |         |    | 1604 | 0.8 | 4327  | 1.9  |      |
| Total Procurement Cos           |                   |    |         |    |         |    |         | 4.1 |         | 3.3 |         | 0.4 |         |    |         |    |      | 5.3 |       |      | 13.1 |

| INDIVIDUAL MODIFICATION  |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |   |         |                               |      |      |          |      |        |       |
|--|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|---|---------|-------------------------------|------|------|----------|------|--------|-------|
| MODIFICATION TITLE: Hand-Held Fire Extinguisher (HHFE) [MOD 17] 1-97-05-4525   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 3003, M1A2 = 747 TOTAL RQMT = 375   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| DESCRIPTION / JUSTIFICATION:<br><p>Under the terms of the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals (ODS's), Halon 1301 used in the Abrams Tank for fire suppression must be eliminated. One current program does this in the engine compartment. This additional program will replace Halon Hand - Held Fire Extinguishers in the Abrams turret with new non - Halon extinguishers (The agent to be used is not yet known but testing to identify the best choice underway). The funding identified here - in will support the initial buy of Abrams Hand - held Fire Extinguishers. Note that installation funding is not identified. This program is expected to result in a one - for - one replacement in each Abrams tank which can easily be carried out by tank crews so deliveries will be directly to tank units and no formal installation program needed. Also note that four (4) extinguishers are required per tank so that 15000 will equip the 3750 tanks noted above while Reserve and N.G. tank requirements will be funded within their individual budgets.</p> |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |      |      |          |      |        |       |
| Preliminary Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 2Q97                    |   |               |   |         | 3Q97                          |      |      |          |      |        |       |
| Critical Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |   |         |                               |      |      |          |      |        |       |
| Initial Operational Test & Eval.   |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |   |         |                               |      |      |          |      |        |       |
| IPR Production Decision  |  |               |   |   |   |               |   |   |   | - - - - - 2Q99                    |   |               |   |         |                               |      |      |          |      |        |       |
| T D P Available  |  |               |   |   |   |               |   |   |   | - - - - - 3Q99                    |   |               |   |         |                               |      |      |          |      |        |       |
| Installation Schedule:   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| Pr Yr  |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |   | FY 2000 |                               |      |      | FY 2001  |      |        |       |
| Totals   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3    | 4    | 1        | 2    | 3      | 4     |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         | 3000                          | 3000 | 3000 | 3000     | 3000 |        |       |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
|  |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |   | FY 2005 |                               |      |      | To       |      | Totals |       |
|  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3    | 4    | Complete |      |        |       |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        | 15000 |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |   |         |                               |      |      |          |      |        |       |
| METHOD OF IMPLEMENTATION: By Tank Crew   |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 2 Months |   |               |   |         | PRODUCTION LEADTIME: 4 Months |      |      |          |      |        |       |
| Contract Dates:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N/A                       |   |               |   |         |                               |      |      |          |      |        |       |
| Delivery Date:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 N/A                       |   |               |   |         |                               |      |      |          |      |        |       |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Hand-Held Fire Extinguisher (HHFE) [MOD 17] 1-97-05-4525

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |    | FY 2000 |     | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |       |     |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|-------|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$    |     |
| RDT&E                           |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| PROCUREMENT                     |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Kit Quantity                    |                   |    |         |    |         |    |         |    | 15000   |     |         |    |         |    |         |    |     |    |       | 15000 |     |
| Installation Kits               |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Equipment                       |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |    |         | 1.8 |         |    |         |    |         |    |     |    |       |       | 1.8 |
| Engineering Change Orders       |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Data                            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Training Equipment              |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Support Equipment               |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Other                           |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Interim Contractor Support      |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Installation of Hardware        |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| TC Equip-Kits                   |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Total Installment               |                   |    |         |    |         |    |         |    |         |     |         |    |         |    |         |    |     |    |       |       |     |
| Total Procurement Cos           |                   |    |         |    |         |    |         |    |         | 1.8 |         |    |         |    |         |    |     |    |       |       | 1.8 |

| INDIVIDUAL MODIFICATION   |  |                |   |   |   |                |   |   |   | Date                              |   | February 1998 |   |         |                               |   |   |          |        |   |   |   |
|---|--|----------------|---|---|---|----------------|---|---|---|-----------------------------------|---|---------------|---|---------|-------------------------------|---|---|----------|--------|---|---|---|
| MODIFICATION TITLE: M1A2 Field Mods (A2FM) [MOD 18] 1-97-05-4534  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| MODELS OF SYSTEMS AFFECTED:<br>M1A2   |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| DESCRIPTION / JUSTIFICATION:<br>M1A2 Field Modifications (A2FM) represents funding for a continuing series of upgrades for M1A2 unique LRU's (Line Replaceable Unit's) and / or SRU's (Shop Replaceable Unit's) . Examples of these include the Fire - Control Electronics Unit (FCEU), Commander's Integrated Display (CID) and various electronic "cards" (A6 , A9 , A10 , A12 & A13 for example) for which modification rather than replacement is both feasible and cost effective. There is no set quantity for this modification. These upgrades will be applied to every fielded M1A2 tank as they are proven and approved and the number of fielded M1A2's will continue to increase. This program is expected to "run" as long as M1A2 production continues. |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                |   |   |   |                |   |   |   | <u>PLANNED</u>                    |   |               |   |         | <u>ACCOMPLISHED</u>           |   |   |          |        |   |   |   |
| IPR Production Decision   |  |                |   |   |   |                |   |   |   | - - - - - 2Q96                    |   |               |   |         | 2Q96                          |   |   |          |        |   |   |   |
| T D P Available   |  |                |   |   |   |                |   |   |   | - - - - - 2Q96                    |   |               |   |         | 2Q96                          |   |   |          |        |   |   |   |
| Installation Schedule:  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
|   |  | FY 1997        |   |   |   | FY 1998        |   |   |   | FY 1999                           |   |               |   | FY 2000 |                               |   |   | FY 2001  |        |   |   |   |
|   |  | Pr Yr          | 1 | 2 | 3 | 4              | 1 | 2 | 3 | 4                                 | 1 | 2             | 3 | 4       | 1                             | 2 | 3 | 4        | 1      | 2 | 3 | 4 |
|   |  | Totals         |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| <b>Inputs</b>   |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| <b>Outputs</b>  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
|   |  | FY 2002        |   |   |   | FY 2003        |   |   |   | FY 2004                           |   |               |   | FY 2005 |                               |   |   | To       | Totals |   |   |   |
|   |  | 1              | 2 | 3 | 4 | 1              | 2 | 3 | 4 | 1                                 | 2 | 3             | 4 | 1       | 2                             | 3 | 4 | Complete |        |   |   |   |
| <b>Inputs</b>   |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| <b>Outputs</b>  |  |                |   |   |   |                |   |   |   |                                   |   |               |   |         |                               |   |   |          |        |   |   |   |
| METHOD OF IMPLEMENTATION: Contractor Team   |  |                |   |   |   |                |   |   |   | ADMINISTRATIVE LEADTIME: 3 Months |   |               |   |         | PRODUCTION LEADTIME: 6 Months |   |   |          |        |   |   |   |
| Contract Dates:   |  | FY 1997 FEB 97 |   |   |   | FY 1998 FEB 98 |   |   |   | FY 1999 FEB 99                    |   |               |   |         |                               |   |   |          |        |   |   |   |
| Delivery Date:  |  | FY 1997 AUG 97 |   |   |   | FY 1998 AUG 98 |   |   |   | FY 1999 AUG 99                    |   |               |   |         |                               |   |   |          |        |   |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): M1A2 Field Mods (A2FM) [MOD 18] 1-97-05-4534

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |    | TOTAL |     |      |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|-----|------|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$ | Qty   | \$  |      |
| RDT&E                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| PROCUREMENT                     |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Kit Quantity                    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Installation Kits               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Installation Kits, Nonrecurring |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Equipment                       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Equipment, Nonrecurring         |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Engineering Change Orders       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Data                            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Training Equipment              |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Support Equipment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Other                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Interim Contractor Support      |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| Installation of Hardware        |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     |      |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 1.4  |
| FY 1997 Eqpt -- Kits            |                   |    |         | 1.4 |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 0.9  |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         | 0.9 |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 0.2  |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |     |         | 0.2 |         |     |         |     |         |     |         |     |     |    |       |     | 1.0  |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |     |         |     | 1.0     |     |         |     |         |     |         |     |     |    |       |     | 2.0  |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         | 2.0 |         |     |         |     |         |     |     |    |       |     | 1.0  |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         | 1.0 |         |     |         |     |     |    |       |     | 1.2  |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         | 1.2 |         |     |     |    |       |     | 6.0  |
| TC Equip-Kits                   |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |    |       |     | 6.0  |
| Total Installment               |                   |    |         | 1.4 |         | 0.9 |         | 0.2 |         | 1.0 |         | 2.0 |         | 1.0 |         | 1.2 |     |    |       | 6.0 | 13.7 |
| Total Procurement Cos           |                   |    |         | 1.4 |         | 0.9 |         | 0.2 |         | 1.0 |         | 2.0 |         | 1.0 |         | 1.2 |     |    |       | 6.0 | 13.7 |

| INDIVIDUAL MODIFICATION  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   | Date          |   |          |        |   |   |
|--|--------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---------------|---|----------|--------|---|---|
|  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   | February 1998 |   |          |        |   |   |
| MODIFICATION TITLE: Matrix Support (MXSP) [MOD 19] N / A   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| MODELS OF SYSTEMS AFFECTED: WHOLE FLEET  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br>Matrix Support funds Government salaries in support of the entire Abrams Tank Modification program.      |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| Installation Schedule:   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
|  | Pr Yr  | FY 1997 |   |   |   | FY 1998 |   |   |   | FY 1999 |   |   |   | FY 2000 |   |               |   | FY 2001  |        |   |   |
|  | Totals | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3             | 4 | 1        | 2      | 3 | 4 |
| <b>Inputs</b>  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| <b>Outputs</b>   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
|  |        | FY 2002 |   |   |   | FY 2003 |   |   |   | FY 2004 |   |   |   | FY 2005 |   |               |   | To       | Totals |   |   |
|  |        | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3             | 4 | Complete |        |   |   |
| <b>Inputs</b>  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| <b>Outputs</b>   |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| METHOD OF IMPLEMENTATION: PM / PEO Initiative      ADMINISTRATIVE LEADTIME: 0 Months      PRODUCTION LEADTIME: 0 Months                  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| Contract Dates:                      FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A  |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |
| Delivery Date:                        FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A |        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |               |   |          |        |   |   |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Matrix Support (MXSP) [MOD 19] N / A

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |     | FY 1998 |     | FY 1999 |     | FY 2000 |     | FY 2001 |     | FY 2002 |     | FY 2003 |     | TC  |     | TOTAL |     |  |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|-----|-------|-----|--|
|                                 | Qty               | \$ | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty     | \$  | Qty | \$  | Qty   | \$  |  |
| RDT&E                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| PROCUREMENT                     |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Kit Quantity                    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Installation Kits               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Installation Kits, Nonrecurring |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Equipment                       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Equipment, Nonrecurring         |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Engineering Change Orders       |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Data                            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Training Equipment              |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Support                         |                   |    |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.6 |         | 0.6 |         | 0.6 |         | 0.6 |     | 3.4 |       | 7.3 |  |
| Other                           |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Interim Contractor Support      |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Installation of Hardware        |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1997 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1998 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 1999 Eqpt -- Kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2000 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2001 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2002 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| FY 2003 Eqpt -- kits            |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| TC Equip-Kits                   |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Total Installment               |                   |    |         |     |         |     |         |     |         |     |         |     |         |     |         |     |     |     |       |     |  |
| Total Procurement Cos           |                   |    |         | 0.5 |         | 0.5 |         | 0.5 |         | 0.6 |         | 0.6 |         | 0.6 |         | 0.6 |     | 3.4 |       | 7.3 |  |

| INDIVIDUAL MODIFICATION   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   | Date | February 1998 |        |   |   |
|---|--------|---------|----|----|----|---------|----|---|---|---------|---|---|---|---------|---|---|------|---------------|--------|---|---|
| MODIFICATION TITLE: <b>Prior Year Mod Installation (PYMI) [MOD 20] N / A</b>  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 355 , 1PM1 = 892 , M1A1 = 4351 , M1A2 = 1079 TOTAL RQMT = 684  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| DESCRIPTION / JUSTIFICATION:<br>Continuing effort to install / apply modification kits procured during or before FY90. This effort was previously budgeted and executed within O&MA (P7M). Beginning in FY90 this effort transitioned from O&MA to PAA funding. |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:<br>There are no hardware milestones associated with this program. All funding detailed here-in is for the installation of Modification Kits procured during or before FY90.                                  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| Installation Schedule:  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
|   | Pr Yr  | FY 1997 |    |    |    | FY 1998 |    |   |   | FY 1999 |   |   |   | FY 2000 |   |   |      | FY 2001       |        |   |   |
|   | Totals | 1       | 2  | 3  | 4  | 1       | 2  | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4    | 1             | 2      | 3 | 4 |
| <b>Inputs</b>   | 6847   |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| <b>Outputs</b>  | 6408   | 100     | 99 | 99 | 99 | 21      | 21 |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
|   |        | FY 2002 |    |    |    | FY 2003 |    |   |   | FY 2004 |   |   |   | FY 2005 |   |   |      | To            | Totals |   |   |
|   |        | 1       | 2  | 3  | 4  | 1       | 2  | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4    | Complete      |        |   |   |
| <b>Inputs</b>   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               | 6847   |   |   |
| <b>Outputs</b>  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               | 6847   |   |   |
| METHOD OF IMPLEMENTATION: N / A      ADMINISTRATIVE LEADTIME: N / A Months      PRODUCTION LEADTIME: N / A Months   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| Contract Dates:                      FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A   |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |
| Delivery Date:                        FY 1997      N / A                      FY 1998      N / A                      FY 1999      N / A  |        |         |    |    |    |         |    |   |   |         |   |   |   |         |   |   |      |               |        |   |   |



INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Prior Year Mod Installation (PYMI) [MOD 20] N / A

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |      | FY 1997 |     | FY 1998 |     | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |      |
|---------------------------------|-------------------|------|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|------|
|                                 | Qty               | \$   | Qty     | \$  | Qty     | \$  | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |      |
| RDT&E                           |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| PROCUREMENT                     |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Kit Quantity                    | 6847              |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       | 6847 |      |
| Installation Kits               |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation Kits, Nonrecurring |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Equipment                       |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Equipment, Nonrecurring         |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Engineering Change Orders       |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Data                            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Training Equipment              |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Support Equipment               |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Other                           |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Interim Contractor Support      |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Installation of Hardware        |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1996 & Prior Eqpt -- Kits    | 6408              | 65.0 | 397     | 4.9 | 42      | 0.5 |         |    |         |    |         |    |         |    |         |    |     |    |       | 6847 | 70.4 |
| FY 1997 Eqpt -- Kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1998 Eqpt -- Kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 1999 Eqpt -- Kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2000 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2001 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2002 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| FY 2003 Eqpt -- kits            |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| TC Equip-Kits                   |                   |      |         |     |         |     |         |    |         |    |         |    |         |    |         |    |     |    |       |      |      |
| Total Installment               | 6408              | 65.0 | 397     | 4.9 | 42      | 0.5 |         |    |         |    |         |    |         |    |         |    |     |    |       | 6847 | 70.4 |
| Total Procurement Cos           |                   | 65.0 |         | 4.9 |         | 0.5 |         |    |         |    |         |    |         |    |         |    |     |    |       |      | 70.4 |

| INDIVIDUAL MODIFICATION  |  |               |   |   |   |               |   |   |   | Date                              |   | February 1998 |    |         |                               |   |   |          |   |        |   |
|--|--|---------------|---|---|---|---------------|---|---|---|-----------------------------------|---|---------------|----|---------|-------------------------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: M1A1-D Integration Kit OSIP NO. 21   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 1535 , M1A2 = 0 TOTAL RQMT = 1535   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br>This modification provides an integration kit for the Force XXI Battle Command Brigade and Below (FBCB2) into the M1A1 tank. Specifically, it complements the basic FBCB2 C2 integration kit by providing a far target designate capability for M1A1 tanks. The funding requested outfits the Army's first digital division. This modification includes integration of a pointing device into the tank and rework of the tank computer to provide range and elevation data necessary for far target designate. The installation costs for this modification are included the hardware costs. |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |               |   |   |   |               |   |   |   | <u>PLANNED</u>                    |   |               |    |         | <u>ACCOMPLISHED</u>           |   |   |          |   |        |   |
| Preliminary Design Review  |  |               |   |   |   |               |   |   |   | - - - - - 2Q98                    |   |               |    |         |                               |   |   |          |   |        |   |
| Contractor Test & Eval.  |  |               |   |   |   |               |   |   |   | - - - - - 3Q98                    |   |               |    |         |                               |   |   |          |   |        |   |
| Critical Design Review   |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |    |         |                               |   |   |          |   |        |   |
| IPR Production Decision  |  |               |   |   |   |               |   |   |   | - - - - - 4Q98                    |   |               |    |         |                               |   |   |          |   |        |   |
| T D P Available  |  |               |   |   |   |               |   |   |   | - - - - - 1Q99                    |   |               |    |         |                               |   |   |          |   |        |   |
| Installation Schedule:   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   |          |   |        |   |
| Pr Yr  |  | FY 1997       |   |   |   | FY 1998       |   |   |   | FY 1999                           |   |               |    | FY 2000 |                               |   |   | FY 2001  |   |        |   |
| Totals   |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4  | 1       | 2                             | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               | 25 | 100     |                               |   |   |          |   |        |   |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |    | 25      | 100                           |   |   |          |   |        |   |
|  |  | FY 2002       |   |   |   | FY 2003       |   |   |   | FY 2004                           |   |               |    | FY 2005 |                               |   |   | To       |   | Totals |   |
|  |  | 1             | 2 | 3 | 4 | 1             | 2 | 3 | 4 | 1                                 | 2 | 3             | 4  | 1       | 2                             | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>  |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   | 1410     |   | 1535   |   |
| <b>Outputs</b>   |  |               |   |   |   |               |   |   |   |                                   |   |               |    |         |                               |   |   | 1410     |   | 1535   |   |
| METHOD OF IMPLEMENTATION: Contractor Team  |  |               |   |   |   |               |   |   |   | ADMINISTRATIVE LEADTIME: 2 Months |   |               |    |         | PRODUCTION LEADTIME: 7 Months |   |   |          |   |        |   |
| Contract Dates:  |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 JAN 99                    |   |               |    |         |                               |   |   |          |   |        |   |
| Delivery Date:   |  | FY 1997 N / A |   |   |   | FY 1998 N / A |   |   |   | FY 1999 AUG 99                    |   |               |    |         |                               |   |   |          |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): M1A1-D Integration Kit OSIP NO. 21

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |    | FY 1999 |      | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC   |       | TOTAL |      |       |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|------|---------|----|---------|----|---------|----|---------|----|------|-------|-------|------|-------|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$   | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty  | \$    | Qty   | \$   |       |
| RDT&E                           |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| PROCUREMENT                     |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Kit Quantity                    |                   |    |         |    |         |    | 125     |      |         |    |         |    |         |    |         |    | 1410 |       |       | 1535 |       |
| Installation Kits               |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Installation Kits, Nonrecurring |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Equipment                       |                   |    |         |    |         |    |         | 20.3 |         |    |         |    |         |    |         |    |      | 271.4 |       |      | 291.7 |
| Equipment, Nonrecurring         |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Engineering Change Orders       |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Data                            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Training Equipment              |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Support Equipment               |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Other                           |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Interim Contractor Support      |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| Installation of Hardware        |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |    |         |      | 125     |    |         |    |         |    |         |    |      |       |       | 125  |       |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    |      |       |       |      |       |
| TC Equip -- 1410 Kits           |                   |    |         |    |         |    |         |      |         |    |         |    |         |    |         |    | 1410 |       |       | 1410 |       |
| Total Installment               |                   |    |         |    |         |    |         |      | 125     |    |         |    |         |    |         |    | 1410 |       |       | 1535 |       |
| Total Procurement Cos           |                   |    |         |    |         |    |         | 20.3 |         |    |         |    |         |    |         |    |      | 271.4 |       |      | 291.7 |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M16 RIFLE MODS (GZ2800)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 29.7        | 1.2     | 2.8     | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 49.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 29.7        | 1.2     | 2.8     | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 49.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 29.7        | 1.2     | 2.8     | 4.9     | 4.7     | 6.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 49.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M16 family of rifles is a gas operated, magazine fed, selective fire and shoulder weapon. They are fed by 30 round aluminum magazines. The M16 Rifle Modifications Program provides a close combat optic, a modular weapon system suite, a top carrysling and a permanently affixed, rear aperture, back-up iron sight. The modular weapon allows the custom configuration of the M16 rifles with accessories and smaller items. i.e. optics, night sights, laser pointers, based on mission requirements.

**JUSTIFICATION:** The close combat optic allows the soldier to fire a weapon with both eyes open allowing greater awareness of events happening in close proximity and improves hit probability in daylight, low light level, wet weather and other adverse conditions. The modular weapon system is a key component of Land Warrior Lethality and allows the combat commander to custom configure weapons with accessories (i.e. day/night sights, laser pointers, ancillary weapons, etc.) based upon the mission. The top carry sling maintains the rifle in an upright position freeing the user's hands for other tasks. The permanent back-up, rear aperture, iron sight provides that capability in the event it becomes immediately necessary.

**Exhibit P-40M Budget Item Justification Sheet**

Date  
February 1998

|  |  |
|--|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles | P-1 Item Nomenclature<br>M16 RIFLE MODS (GZ2800) |
|--|--|

|                                   |      |                                |
|-----------------------------------|------|--------------------------------|
| Program Elements for Code B Items | Code | Other Related Program Elements |
|-----------------------------------|------|--------------------------------|

| Description                      | Classification | Fiscal Years |            |            |            |            |            |            |            |            | TC         | Total       |
|----------------------------------|----------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
|                                  |                | FY 1996      | FY 1997    | FY 1998    | FY 1999    | FY 2000    | FY 2001    | FY 2002    | FY 2003    |            |            |             |
| Modular Weapon System (M16/M203) |                |              |            |            |            |            |            |            |            |            |            |             |
| TBD1                             | Operational    | 0.0          | 2.9        | 1.5        | 4.5        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 8.9         |
| Close Combat Optics (M16)        |                |              |            |            |            |            |            |            |            |            |            |             |
| TBD2                             | Operational    | 2.8          | 2.0        | 3.1        | 1.7        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 0.0        | 9.6         |
| <b>Totals</b>                    |                | <b>2.8</b>   | <b>4.9</b> | <b>4.7</b> | <b>6.2</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>0.0</b> | <b>18.6</b> |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |
|                                  |                |              |            |            |            |            |            |            |            |            |            |             |

| INDIVIDUAL MODIFICATION   |  |                  |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |              |   |   |           |   |        |   |
|---|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|--------------|---|---|-----------|---|--------|---|
| MODIFICATION TITLE: <b>Modular Weapon System (M16/M203) TBD1</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| MODELS OF SYSTEMS AFFECTED: Rifle, 5.56mm M16A2   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DESCRIPTION / JUSTIFICATION:<br><br>The modular weapon is a system of mounting rails/methods that allows the custom configuration of M16 Rifles with accessories and ancillary items such as optics, night sights, IR laser pointer, the grenade launcher, back-up sights, etc., based upon mission requirements in the field, without tools. |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |               |   |                      | ACCOMPLISHED |   |   |           |   |        |   |
| Developmental/Operational Tests   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 3Q95-2Q96    |   |   |           |   |        |   |
| Milestone III Production Decision   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
| Production Contract Award   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q97         |   |   |           |   |        |   |
| First Production Hardware Delivered   |  |                  |   |   |   |                          |   |   |   | 3Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| First Unit Equipped   |  |                  |   |   |   |                          |   |   |   | 4Q98           |   |               |   |                      |              |   |   |           |   |        |   |
| Installation Schedule:  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| Pr Yr   |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |              |   |   | FY 2001   |   |        |   |
| Totals  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1         | 2 | 3      | 4 |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
|   |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |              |   |   | To        |   | Totals |   |
|   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete  |   |        |   |
| <b>Inputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| <b>Outputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |           |   |        |   |
| METHOD OF IMPLEMENTATION:   |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 6 Months       |   |               |   | PRODUCTION LEADTIME: |              |   |   | 12 Months |   |        |   |
| Contract Dates:   |  | FY 1997 Aug 97   |   |   |   | FY 1998 May 98           |   |   |   | FY 1999 Nov 98 |   |               |   |                      |              |   |   |           |   |        |   |
| Delivery Date:  |  | FY 1997 Apr 98   |   |   |   | FY 1998 Oct 98           |   |   |   | FY 1999 Oct 99 |   |               |   |                      |              |   |   |           |   |        |   |

INDIVIDUAL MODIFICATION

Date

February 1998

MODIFICATION TITLE (Cont): Modular Weapon System (M16/M203) TBD1

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |      |       |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$   |       |
| RDT&E                           |                   | 1.158 |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      | 1.158 |
| PROCUREMENT                     |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Kit Quantity                    |                   |       | 3143    |       | 1612    |       | 4380    |       |         |    |         |    |         |    |         |    |     |    |       | 9135 |       |
| Installation Kits               |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Equipment                       |                   |       |         | 2.404 |         | 1.487 |         | 4.038 |         |    |         |    |         |    |         |    |     |    |       |      | 7.929 |
| Equipment, Nonrecurring         |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Engineering Support             |                   |       |         | 0.207 |         | 0.025 |         | 0.215 |         |    |         |    |         |    |         |    |     |    |       |      | 0.447 |
| Testing                         |                   |       |         | 0.100 |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      | 0.100 |
| Integrated Logistical Support   |                   |       |         | 0.050 |         | 0.005 |         | 0.075 |         |    |         |    |         |    |         |    |     |    |       |      | 0.130 |
| Fielding                        |                   |       |         | 0.100 |         | 0.032 |         | 0.180 |         |    |         |    |         |    |         |    |     |    |       |      | 0.312 |
| Other                           |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Interim Contractor Support      |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Installation of Hardware        |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 1997 Eqpt -- Kits            |                   |       |         |       | 3000    |       | 143     |       |         |    |         |    |         |    |         |    |     |    |       |      | 3143  |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 1357    |       | 255     |    |         |    |         |    |         |    |     |    |       |      | 1612  |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       |         |       | 4380    |    |         |    |         |    |         |    |     |    |       |      | 4380  |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |      |       |
| Total Installment               |                   |       |         |       | 3000    |       | 1500    |       | 4635    |    |         |    |         |    |         |    |     |    |       |      | 9135  |
| Total Procurement Cos           |                   |       |         | 2.9   |         | 1.5   |         | 4.5   |         |    |         |    |         |    |         |    |     |    |       |      | 8.9   |

| INDIVIDUAL MODIFICATION  |  |                  |   |   |   |                          |   |   |   | Date           |   | February 1998 |   |                      |              |   |   |          |   |        |   |
|--|--|------------------|---|---|---|--------------------------|---|---|---|----------------|---|---------------|---|----------------------|--------------|---|---|----------|---|--------|---|
| MODIFICATION TITLE: Close Combat Optics (M16) TBD2   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| MODELS OF SYSTEMS AFFECTED: M16A2 Rifle, M68 Sight Reflex  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| DESCRIPTION / JUSTIFICATION:   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| The M68 Sight will be installed on the M16A2 Rifle   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| The Close Combat Optic allows the soldier to fire his weapon with both eyes open allowing greater awareness of events happening in close proximity to the soldier and improves hit probability in daylight, low light level, wet weather and other adverse conditions. |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:   |  |                  |   |   |   |                          |   |   |   | PLANNED        |   |               |   |                      | ACCOMPLISHED |   |   |          |   |        |   |
| Development/Operational Test   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 1/2Q96       |   |   |          |   |        |   |
| Type Classification (LRIP)   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q96         |   |   |          |   |        |   |
| Production Contract Award  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 4Q96         |   |   |          |   |        |   |
| First Production Hardware Delivered  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      | 1Q97         |   |   |          |   |        |   |
| First Unit Equipped  |  |                  |   |   |   |                          |   |   |   | 2Q98           |   |               |   |                      |              |   |   |          |   |        |   |
| Installation Schedule:   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| Pr Yr  |  | FY 1997          |   |   |   | FY 1998                  |   |   |   | FY 1999        |   |               |   | FY 2000              |              |   |   | FY 2001  |   |        |   |
| Totals   |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1        | 2 | 3      | 4 |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
|  |  | FY 2002          |   |   |   | FY 2003                  |   |   |   | FY 2004        |   |               |   | FY 2005              |              |   |   | To       |   | Totals |   |
|  |  | 1                | 2 | 3 | 4 | 1                        | 2 | 3 | 4 | 1              | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete |   |        |   |
| <b>Inputs</b>  |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| <b>Outputs</b>   |  |                  |   |   |   |                          |   |   |   |                |   |               |   |                      |              |   |   |          |   |        |   |
| METHOD OF IMPLEMENTATION:  |  | Unit Application |   |   |   | ADMINISTRATIVE LEADTIME: |   |   |   | 1 Months       |   |               |   | PRODUCTION LEADTIME: |              |   |   | 6 Months |   |        |   |
| Contract Dates:  |  | FY 1997 Jul 97   |   |   |   | FY 1998 Jan 98           |   |   |   | FY 1999 Jan 99 |   |               |   |                      |              |   |   |          |   |        |   |
| Delivery Date:   |  | FY 1997 Jul 98   |   |   |   | FY 1998 Mar 99           |   |   |   | FY 1999 Jun 99 |   |               |   |                      |              |   |   |          |   |        |   |



INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Close Combat Optics (M16) TBD2

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |       | FY 1999 |       | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |       |       |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-------|
|                                 | Qty               | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$    |       |
| RDT&E                           |                   | 1.469 |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 1.469 |
| PROCUREMENT                     |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Kit Quantity                    | 12090             |       | 9361    |       | 14840   |       | 7520    |       |         |    |         |    |         |    |         |    |     |    |       | 43811 |       |
| Installation Kits               |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation Kits, Nonrecurring |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Equipment                       |                   | 2.353 |         | 1.795 |         | 2.845 |         | 1.504 |         |    |         |    |         |    |         |    |     |    |       |       | 8.497 |
| Eng Change Proposal             |                   |       |         | 0.026 |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 0.026 |
| Engineering Support             |                   | 0.337 |         | 0.185 |         | 0.185 |         | 0.139 |         |    |         |    |         |    |         |    |     |    |       |       | 0.846 |
| Testing                         |                   |       |         |       |         | 0.050 |         | 0.050 |         |    |         |    |         |    |         |    |     |    |       |       | 0.100 |
| Integrated Logistical Support   |                   | 0.030 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |         |    |     |    |       |       | 0.090 |
| Fielding                        |                   | 0.030 |         | 0.020 |         | 0.020 |         | 0.020 |         |    |         |    |         |    |         |    |     |    |       |       | 0.090 |
| Other                           |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Interim Contractor Support      |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Installation of Hardware        |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 1996 & Prior Eqpt -- Kits    |                   |       |         |       | 12090   |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       | 12090 |
| FY 1997 Eqpt -- Kits            |                   |       |         | 511   |         |       | 8850    |       |         |    |         |    |         |    |         |    |     |    |       |       | 9361  |
| FY 1998 Eqpt -- Kits            |                   |       |         |       |         |       | 2770    |       | 12070   |    |         |    |         |    |         |    |     |    |       |       | 14840 |
| FY 1999 Eqpt -- Kits            |                   |       |         |       |         |       |         |       | 7520    |    |         |    |         |    |         |    |     |    |       |       | 7520  |
| FY 2000 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2001 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2002 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| FY 2003 Eqpt -- kits            |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| TC Equip-Kits                   |                   |       |         |       |         |       |         |       |         |    |         |    |         |    |         |    |     |    |       |       |       |
| Total Installment               |                   |       |         |       | 12601   |       | 11620   |       | 19590   |    |         |    |         |    |         |    |     |    |       |       | 43811 |
| Total Procurement Cos           |                   | 2.8   |         | 2.0   |         | 3.1   |         | 1.7   |         |    |         |    |         |    |         |    |     |    |       |       | 9.6   |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 172         | 34      | 100     | 120     | 120     | 120     | 120     | 105     | 90      | 88      |             | 1069       |
| Gross Cost       | 658.0       | 132.2   | 440.1   | 501.0   | 586.8   | 666.2   | 667.5   | 630.1   | 595.6   | 675.3   | 344.3       | 5897.1     |
| Less PY Adv Proc | 196.7       | 33.9    | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |             | 2024.4     |
| Plus CY Adv Proc | 230.6       | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |         |             | 2024.4     |
| Net Proc (P-1)   | 691.9       | 279.6   | 556.0   | 462.0   | 582.2   | 675.6   | 647.3   | 541.0   | 586.3   | 530.9   | 344.3       | 5897.1     |
| Initial Spares   | 1.6         | 2.7     | 17.1    | 9.2     | 13.7    | 9.8     | 9.9     | 10.8    | 16.9    | 16.0    | 38.0        | 145.7      |
| Total Proc Cost  | 693.5       | 282.3   | 573.1   | 471.2   | 595.8   | 685.4   | 657.2   | 551.8   | 603.2   | 546.9   | 382.3       | 6042.8     |
| Flyaway U/C      | 3.5         | 3.6     | 3.7     | 3.6     | 4.3     | 4.9     | 4.9     | 5.2     | 5.7     | 6.8     |             |            |
| Wpn Sys Proc U/C | 3.8         | 4.0     | 4.6     | 4.3     | 5.0     | 5.6     | 5.6     | 6.1     | 6.8     | 7.9     |             |            |

**DESCRIPTION:** The Abrams Tank Upgrade Program supports the Department of Army vision for the future. The Upgrade Program will reconfigure M1 Tanks to the M1A2 configuration making it a more survivable and lethal tank. This includes the Commander's Independent Thermal Viewer (CITV), Improved Commander's Weapon Station (ICWS), Position Navigation (POS/NAV) equipment, Radio Interface Unit (RIU), Core Architecture, D. U. Armor, 120mm Gun and Nuclear, Biological and Chemical (NBC) protection. In FY99 2nd Generation Forward Looking Infrared (FLIR) and vehicle core electronic upgrades will be cut into production.

**JUSTIFICATION:** The Upgrade Program will modernize the U.S. Army's armor force to enhance the combat effectiveness of the Abrams Tank Fleet and maintain the key elements of the tank industrial base.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis  |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |               |       | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |               |       | Weapon System Type: |               |       | Date:<br>February 1998 |               |       |          |
|--|--|--|---------------|-------|--|---------------|-------|---------------------|---------------|-------|------------------------|---------------|-------|----------|
| WTCV<br>Cost Elements                      |  | ID   | FY 96         |       |  | FY 97         |       |                     | FY 98         |       |                        | FY 99         |       |          |
|  |  | CD   | TotalCost     | Qty   | UnitCost   | TotalCost     | Qty   | UnitCost            | TotalCost     | Qty   | UnitCost               | TotalCost     | Qty   | UnitCost |
|  |  |  | \$000         | Each  | \$000  | \$000         | Each  | \$000               | \$000         | Each  | \$000                  | \$000         | Each  | \$000    |
| 1. Basic Vehicle                           |  | A  | 215393        | 100   | 2154   | 293949        | 120   | 2450                | 301095        | 120   | 2509                   | 322228        | 120   | 2685     |
| 2. Armor                                   |  |  | 35742         | 80    | 447  | 27569         | 122   | 226                 | 39292         | 121   | 325                    | 40186         | 120   | 335      |
| 3. H/TEU                                   |  |  | 5850          | 200   | 29   | 7170          | 240   | 30                  | 6748          | 240   | 28                     |               |       |          |
| 4. Engine (DECU)                           |  |  | 2347          | 100   | 23   | 2655          | 120   | 22                  | 3072          | 120   | 26                     | 3114          | 120   | 26       |
| 5. Transmission                            |  |  | 22684         | 100   | 227  | 22534         | 120   | 188                 | 23482         | 120   | 196                    | 23799         | 120   | 198      |
| 6. Final Drive                             |  |  | 1379          | 200   | 7  | 1491          | 240   | 6                   | 1375          | 240   | 6                      | 1375          | 240   | 6        |
| 7. Fire Control                            |  |  | 32711         | 100   | 327  | 39485         | 120   | 329                 | 39347         | 120   | 328                    | 1805          | 120   | 15       |
| 8. Track                                   |  |  | 3327          | 15600 |  | 5678          | 18720 |                     | 5696          | 18720 |                        | 5696          | 18720 |          |
| 9. Roadwheels                              |  |  | 933           | 3200  |  | 1421          | 3840  |                     | 1421          | 3840  |                        | 1421          | 3840  |          |
| 10. Gun Mounts                             |  |  | 2142          | 50    | 43   | 2057          | 60    | 34                  | 2558          | 60    | 43                     | 3290          | 60    | 55       |
| 11. Gun                                    |  |  | 11672         | 100   | 117  | 11827         | 120   | 99                  | 12073         | 120   | 101                    | 15487         | 120   | 129      |
| 12. Driver's Night Viewer                  |  |  | 539           | 100   | 5  | 599           | 120   | 5                   | 617           | 120   | 5                      | 626           | 120   | 5        |
| 13. Basic Issue Items                      |  |  | 752           | 100   | 8  | 804           | 120   | 7                   | 769           | 120   | 6                      | 915           | 120   | 8        |
| 14. MILSTRIPS/RIK                          |  |  | 684           | 100   | 7  | 502           | 120   | 4                   | 663           | 120   | 6                      | 672           | 120   | 6        |
| 15. VIS                                    |  |  | 568           | 60    | 9  | 978           | 120   | 8                   | 1049          | 120   | 9                      | 1135          | 120   | 9        |
| 16. Special Tools & Test Sets              |  |  | 3376          |       |  | 753           |       |                     | 18400         |       |                        | 15600         |       |          |
| 17. Contract Engineering                   |  |  | 59087         |       |  | 62557         |       |                     | 65162         |       |                        | 72083         |       |          |
| 18. Project Mgt Administration             |  |  | 2401          |       |  | 1685          |       |                     | 1711          |       |                        | 1726          |       |          |
| 19. Matrix Support                         |  |  | 7913          |       |  | 491           |       |                     | 4324          |       |                        | 4361          |       |          |
| 20. Auxiliary Services                     |  |  | 2992          |       |  | 245           |       |                     | 2270          |       |                        | 3251          |       |          |
| 21. Engineering Support                    |  |  | 10901         |       |  | 2643          |       |                     | 6956          |       |                        | 7015          |       |          |
| 22. Quality Support                        |  |  | 1184          |       |  | 926           |       |                     | 1080          |       |                        | 1089          |       |          |
| 23. Testing                                |  |  | 4114          |       |  | 4172          |       |                     | 4237          |       |                        | 4273          |       |          |
| 24. Transportation (FDT)                   |  |  | 525           |       |  | 619           |       |                     | 629           |       |                        | 634           |       |          |
| 25. Total Package Fielding                 |  |  | 10884         |       |  | 8236          |       |                     | 8389          |       |                        | 8735          |       |          |
| 26. II Gen FLIR                            |  |  |               |       |  |               |       |                     | 9030          |       |                        | 96636         | 120   | 805      |
| 27. STS C2 FPTA 01                         |  |  |               |       |  |               |       |                     | 1038          |       |                        | 1017          |       |          |
| 28. Pre Mod Depot Maint                    |  |  |               |       |  |               |       |                     | 24316         | 120   | 203                    | 28026         | 120   | 234      |
| 29. Industrial Base/"Shut-Down             |  |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| 30. NonRecurring Cost (Pilots,GFE Seed,IPT |  |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| 31. Service Life Extension (SLE)           |  |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| <b>TOTAL</b>                               |  |  | <b>440100</b> |       |  | <b>501046</b> |       |                     | <b>586799</b> |       |                        | <b>666195</b> |       |          |
| <b>Gross P-1 End Cost</b>                  |  |  | <b>440100</b> | 100   | 4401   | <b>501046</b> | 120   | 4175                | <b>586799</b> | 120   | 4890                   | <b>666195</b> | 120   | 5552     |
| Less: Prior Year Adv Proc                  |  |  | 181306        |       |  | 297218        |       |                     | 258171        |       |                        | 253534        |       |          |
| <b>Net P-1 Full Funding Cost</b>           |  |  | <b>258794</b> |       |  | <b>203828</b> |       |                     | <b>328628</b> |       |                        | <b>412661</b> |       |          |
| Plus: P-1 CY Adv Proc                      |  |  | 297218        |       |  | 258171        |       |                     | 253534        |       |                        | 262942        |       |          |
| Other Non P-1 Costs                        |  |  | 19774         |       |  | 24955         |       |                     |               |       |                        |               |       |          |
| Initial Spares                             |  |  | 17057         |       |  | 9248          |       |                     | 13662         |       |                        | 9800          |       |          |
| Mods                                       |  |  |               |       |  |               |       |                     |               |       |                        |               |       |          |
| <b>TOTAL</b>                               |  |  | <b>592843</b> |       |  | <b>496202</b> |       |                     | <b>595824</b> |       |                        | <b>685403</b> |       |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked  
 Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location    | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|----------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. Basic Vehicle</b>            |                            |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | GDLS/1                     | /2(1)                    | TACOM-Warren    | Jul-96     | Oct-96                 | 100      | 2154            | Yes              |                  | Jan-95         |
| FY 97                              | GDLS/1                     | /2(2)                    | TACOM-Warren    | Dec-96     | Aug-97                 | 120      | 2450            | Yes              |                  | Jan-95         |
| FY 98                              | GDLS/1                     | /2(3)                    | TACOM-Warren    | Feb-98     | Aug-98                 | 120      | 2509            | Yes              |                  | Jan-95         |
| FY 99                              | GDLS/1                     | /2(4)                    | TACOM-Warren    | Feb-99     | Aug-99                 | 120      | 2685            | Yes              |                  | Jan-95         |
| <b>2. Armor/3</b>                  |                            |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | LITCO/5                    | SS/CPFF                  | DOE/4           | Mar-95     | Apr-96                 | 80       | 447             | NA               |                  | NA             |
| FY 97                              | LITCO/5                    | SS/CPFF                  | DOE/4           | Mar-96     | Feb-97                 | 122      | 226             | NA               |                  | NA             |
| FY 98                              | LITCO/5                    | SS/CPFF                  | DOE/4           | Feb-97     | Feb-98                 | 121      | 325             | NA               |                  | NA             |
| FY 99                              | LITCO/5                    | SS/CPFF                  | DOE/4           | Jan-98     | Feb-99                 | 120      | 335             | NA               |                  | NA             |
| <b>3. H/TEU</b>                    |                            |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | GDLS/1                     | SS/FFP                   | TACOM-Warren/6  | Apr-95     | Apr-96                 | 200      | 29              | Yes              |                  |                |
| FY 97                              | GDLS/1                     | C/FFP                    | TACOM-ACALA/7   | May-96     | Feb-97                 | 240      | 30              | Yes              |                  | Feb-96         |
| FY 98                              | GDLS/1                     | OPTION                   | TACOM-ACALA/7   | Mar-97     | Feb-98                 | 240      | 28              | Yes              |                  | Feb-96         |
| <b>4. Engine (DECU)/10</b>         |                            |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | AlliedSignal/8             | SS/FFP                   | TACOM-Warren    | Feb-95     | Apr-96                 | 100      | 23              | Yes              |                  | Aug-94         |
| FY 97                              | AlliedSignal/8             | OPTION                   | TACOM-Warren    | Mar-96     | Feb-97                 | 120      | 22              | Yes              |                  | Aug-94         |
| FY 98                              | AlliedSignal/8             | OPTION                   | TACOM-Warren    | Apr-97     | Feb-98                 | 120      | 26              | Yes              |                  | Aug-94         |
| FY 99                              | AlliedSignal/8             | SS/FFP                   | TACOM-Warren    | Jan-98     | Feb-99                 | 120      | 26              | Yes              |                  | Sep-97         |
| <b>5. Transmission</b>             |                            |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 96                              | Allison Transmission Div/9 | OPTION                   | TACOM-Warren    | Apr-95     | Apr-96                 | 100      | 227             | Yes              |                  | Oct-93         |
| FY 97                              | Allison Transmission Div/9 | OPTION                   | TACOM-Warren    | Dec-95     | Feb-97                 | 120      | 188             | Yes              |                  | Oct-93         |
| FY 98                              | Allison Transmission Div/9 | SS/FFP/CF                | TACOM-Warren    | Sep-97     | Feb-98                 | 120      | 196             | Yes              |                  | Dec-96         |
| FY 99                              | Allison Transmission Div/9 | OPTION                   | TACOM-Warren    | Feb-98     | Feb-99                 | 120      | 198             | Yes              |                  | Dec-96         |

REMARKS: /1. General Dynamics Land System, Warren, MI /7. Awarded to GDLS on a separate competitive contract  
 /2. SS/FFP/M5 /8. AlliedSignal/Control & Accessories, Tucson, AZ  
 /3. Armor production leads tank production /9. Allison Transmission Div, GM Corp, Indianapolis, IN  
 /4. Department of Energy /10. Awards are against a Navy BOA Contract therefore no RFP issued  
 /5. Lockheed Idaho Technologies Company, Idaho Falls, Idaho only letter with new requirements.  
 /6. Awarded to GDLS as part of the Long Lead Material Contract

| Exhibit P-5a, Budget Procurement History and Planning   |                          |                          |                 |  |                        |          |                 |                  |                  | Date:          |
|---|--------------------------|--------------------------|-----------------|--|------------------------|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles   |                          |                          |                 |  |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |                          |                          |                 | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |                        |          |                 |                  |                  |                |
| WBS Cost Elements:  | Contractor and Location  | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 6. Final Drive  |                          |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | TACOM NICP               | REQ                      |                 | Mar-95   | Apr-96                 | 200      | 7               | Yes              |                  | NA             |
| FY 97   | LOC Performance, Inc/1   | C/FFP                    | TACOM-Warren    | Nov-95   | Feb-97                 | 240      | 6               | Yes              |                  | Apr-95         |
| FY 98   | LOC Performance, Inc/1   | OPTION                   | TACOM-Warren    | Jan-97   | Feb-98                 | 240      | 6               | Yes              |                  | Apr-95         |
| FY 99   | LOC Performance, Inc/1   | OPTION                   | TACOM-Warren    | Apr-98   | Feb-99                 | 240      | 6               | Yes              |                  | Apr-95         |
| 7. Fire Control   |                          |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var  | Apr-96                 | 100      | 327             | Yes              |                  | Var            |
| FY 97   | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var  | Feb-97                 | 120      | 329             | Yes              |                  | Var            |
| FY 98   | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var  | Feb-98                 | 120      | 328             | Yes              |                  | Var            |
| FY 99   | Hughes/2/Various         | Various                  | TACOM-ACALA     | Var  | Feb-99                 | 120      | 15              | Yes              |                  | Var            |
| 8. Track  |                          |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | Goodyear Tire & Rubber/3 | C/FFP                    | TACOM-Warren    | Feb-96   | Apr-96                 | 15600    |                 | Yes              |                  | Oct-95         |
| FY 97   | Goodyear Tire & Rubber/3 | OPTION                   | TACOM-Warren    | Mar-96   | Feb-97                 | 18720    |                 | Yes              |                  | Oct-95         |
| FY 98   | Goodyear Tire & Rubber/3 | OPTION                   | TACOM-Warren    | Nov-96   | Feb-98                 | 18720    |                 | Yes              |                  | Oct-95         |
| FY 99   | Goodyear Tire & Rubber/3 | SS/FFP                   | TACOM-Warren    | Apr-98   | Feb-99                 | 18720    |                 | Yes              |                  | Dec-97         |
| 9. Roadwheels   |                          |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | B&C Corp/4               | /5                       | TACOM-Warren    | Feb-95   | Apr-96                 | 3200     |                 | Yes              |                  | Jul-92         |
| FY 97   | B&C Corp/4               | /5                       | TACOM-Warren    | Mar-96   | Feb-97                 | 3840     |                 | Yes              |                  | Sep-95         |
| FY 98   | B&C Corp/4               | /5                       | TACOM-Warren    | Dec-96   | Feb-98                 | 3840     |                 | Yes              |                  | Sep-95         |
| FY 99   | B&C Corp/4               | /5                       | TACOM-Warren    | Apr-98   | Feb-99                 | 3840     |                 | Yes              |                  | Sep-95         |
| <b>REMARKS:</b> /1. Loc Performance, Inc, Plymouth, MI<br>/2. Hughes Aircraft, El Segundo, CA<br>/3. Goodyear Tire & Rubber Co., Akron, OH<br>/4. B&C Corp, Barberton, OH<br>/5. Requirement Contract/FFP |                          |                          |                 |  |                        |          |                 |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |  |                        |          |                 |                  |                  | Date:          |
|---|-------------------------|--------------------------|-----------------|--|------------------------|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles                             |                         |                          |                 |  |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |                         |                          |                 | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |                        |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 10. Gun Mounts/1  |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | RIA                     | WR                       |                 | Jun-95   | Apr-96                 | 50       | 43              | Yes              |                  | NA             |
| FY 97   | RIA                     | WR                       |                 | Mar-96   | Feb-97                 | 60       | 34              | Yes              |                  | NA             |
| FY 98   | RIA                     | WR                       |                 | Feb-97   | Feb-98                 | 60       | 43              | Yes              |                  | NA             |
| FY 99   | RIA                     | WR                       |                 | Apr-98   | Feb-99                 | 60       | 55              | Yes              |                  | NA             |
| 11. Gun   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | Waterviet               | WR                       |                 | Mar-95   | Apr-96                 | 100      | 117             | Yes              |                  | NA             |
| FY 97   | Waterviet               | WR                       |                 | Aug-96   | Feb-97                 | 120      | 99              | Yes              |                  | NA             |
| FY 98   | Waterviet               | WR                       |                 | Mar-97   | Feb-98                 | 120      | 101             | Yes              |                  | NA             |
| FY 99   | Waterviet               | WR                       |                 | Apr-98   | Feb-99                 | 120      | 129             | Yes              |                  | NA             |
| 12. Driver's Night Viewer   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | CECOM NICP              | REQ                      |                 | Jul-95   | Apr-96                 | 100      | 5               | Yes              |                  | NA             |
| FY 97   | CECOM NICP              | REQ                      |                 | Jun-96   | Feb-97                 | 120      | 5               | Yes              |                  | NA             |
| FY 98   | CECOM NICP              | REQ                      | CECOM           | Sep-97   | Feb-98                 | 120      | 5               | Yes              |                  | NA             |
| FY 99   | TBD                     | TBD                      | CECOM           | Jul-98   | Feb-99                 | 120      | 5               | Yes              |                  | NA             |
| 13. Basic Issue Items   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | TACOM-ACALA             | WR                       |                 | May-95   | Apr-96                 | 100      | 8               | Yes              |                  | NA             |
| FY 97   | TACOM-ACALA             | WR                       |                 | May-96   | Feb-97                 | 120      | 7               | Yes              |                  | NA             |
| FY 98   | TACOM-ACALA             | WR                       |                 | Feb-97   | Feb-98                 | 120      | 6               | Yes              |                  | NA             |
| FY 99   | TACOM-ACALA             | WR                       |                 | Apr-98   | Feb-99                 | 120      | 8               | Yes              |                  | NA             |
| <b>REMARKS:</b> /1. RIA, Rock Island Arsenal, Rock Island, IL produces 50% of gun mounts.<br>The remainder are procured with the GDLS contract. |                         |                          |                 |  |                        |          |                 |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |  |                        |          |                 |                  |                  | Date:          |
|---|-------------------------|--------------------------|-----------------|--|------------------------|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked<br>Combat Vehicles   |                         |                          |                 |  |                        |          |                 |                  |                  | February 1998  |
| Weapon System Type:   |                         |                          |                 | P-1 Line Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |                        |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 14. MILSTRIPS/RIK   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96   | NA                      | REQ/WR                   |                 | Various  | Apr-96                 | 100      | 7               | Yes              |                  | NA             |
| FY 97   | NA                      | REQ/WR                   |                 | Various  | Feb-97                 | 120      | 4               | Yes              |                  | NA             |
| FY 98   | NA                      | REQ/WR                   |                 | Various  | Feb-98                 | 120      | 6               | Yes              |                  | NA             |
| FY 99   | NA                      | REQ/WR                   |                 | Various  | Feb-99                 | 120      | 6               | Yes              |                  | NA             |
| 15. VIS/1   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 96/3   | Grumman/2               | OPTION                   | CECOM           | Dec-95   | Apr-96                 | 60       | 9               | Yes              |                  | Sep-91         |
| FY 97   | Grumman/2               | OPTION                   | CECOM           | May-96   | Feb-97                 | 120      | 8               | Yes              |                  | Sep-91         |
| FY 98   | Grumman/2               | OPTION                   | CECOM           | Apr-97   | Feb-98                 | 120      | 9               | Yes              |                  | Sep-91         |
| FY 99   | Grumman/2               | OPTION                   | CECOM           | Jun-98   | Feb-99                 | 120      | 9               | Yes              |                  | Sep-91         |
| 26. II Gen FLIR   |                         |                          |                 |  |                        |          |                 |                  |                  |                |
| FY 99   | Various                 | SS/FFP                   | CECOM           | Jan-98   | Feb-99                 | 120      | 805             | Yes              |                  | Sep-96         |
| <b>REMARKS:</b> /1. VIS, Vehicular Intercommunication System<br>/2. Grumman Aerospace Corp, Bethpage, NY<br>/3. 40 VIS Components were previously procured in Phase I |                         |                          |                 |  |                        |          |                 |                  |                  |                |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                  |         |      |               |                       |                     | P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750) |                  |                    |  |     |     |     |     |     |     |     |     |                  |     | Date: February 1998 |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|---------------------------------------|------------------|---------|------|---------------|-----------------------|---------------------|--|------------------|--------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|----|-----|-----|--|--|--|
| COST ELEMENTS                         | MFR              | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 96   |                  |                    |  |     |     |     |     |     |     |     |     | Fiscal Year 97   |     |                     |     |     |     |     |     |     |     |     |     | LATER |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     | Calendar Year 96                                       |                  |                    |  |     |     |     |     |     |     |     |     | Calendar Year 97 |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     | OCT  | NOV              | DEC                | JAN  | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |    |     |     |  |  |  |
| 1. Basic Vehicle                      | 1                | 95 & Pr | A    | 206           | 95                    | 111                 | 10   | 9                | 8                  | 10   | 10  | 10  | 10  | 10  | 9   | 6   | 10  | 9   |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       | 1                | FY 96   | A    | 100           | 0                     | 100                 |  |                  |                    |  |     |     |     |     |     | A   |     |     | 11               | 9   | 8                   | 11  | 11  | 11  | 11  | 11  | 11  | 11  | 6   |     |       |    |     |     |  |  |  |
|                                       | 1                | FY 97   | A    | 120           | 0                     | 120                 |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     | A                   |     |     |     |     |     |     |     |     |     | 10    | 10 | 100 |     |  |  |  |
|                                       | 1                | FY 98   | A    | 120           | 0                     | 120                 |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     | 120 |  |  |  |
|                                       | 1                | FY 99   | A    | 120           | 0                     | 120                 |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     | 120 |  |  |  |
|                                       | 1                | FY00    | A    | 120           | 0                     | 120                 |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     | 120 |  |  |  |
|                                       | 1                | FY01    | A    | 105           | 0                     | 105                 |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     | 105 |  |  |  |
|                                       | 1                | FY02    | A    | 90            | 0                     | 90                  |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     | 90  |  |  |  |
|                                       | 1                | FY03    | A    | 88            | 0                     | 88                  |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     | 88  |  |  |  |
| 2. GOE - M1A1                         | 1                | 93& Pr  | FMS  | 100           | 0                     | 100                 | 7  | 8                | 6                  | 9  | 8   | 9   | 8   | 9   | 4   | 4   | 10  | 9   | 9                |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       | 1                | 93& Pr  | FMS  | 32            | 0                     | 32                  |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       | 1                | 93& Pr  | FMS  | 31            | 0                     | 31                  |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
| 3. KUWAIT - M1A2                      | 1                | 93& Pr  | FMS  | 218           | 161                   | 57                  | 13   | 12               | 9                  | 12   | 11  |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
| TOTAL                                 |                  |         |      | 1450          | 256                   | 1194                | 30   | 29               | 23                 | 31   | 29  | 19  | 18  | 19  | 13  | 10  | 20  | 18  | 21               | 18  | 14                  | 20  | 18  | 15  | 15  | 15  | 15  | 10  | 14  | 14  |       |    |     | 746 |  |  |  |
|                                       |                  |         |      |               |                       |                     | OCT  | NOV              | DEC                | JAN  | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |    |     |     |  |  |  |
| MFR                                   | PRODUCTION RATES |         |      | REACHED D +   | MFR Number            | ADMIN LEAD TIME     |  | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
| NAME / LOCATION                       | MIN.             | 1-8-5   | MAX. |               |                       | Prior 1 Oct.        | After 1 Oct.   |                  |                    | LATP is the only facility in the United States capable of producing tanks.   |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
| 1 LIMA ARMY TANK PLANT, LIMA, OH      | 10               | 10      | 25   | 22            |                       | 0                   | 3  | 14               | 17                 | LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       | 0                   | 3  | 14               | 17                 |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |
|                                       |                  |         |      |               |                       |                     |  |                  |                    |  |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |       |    |     |     |  |  |  |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                  |         |      |               |                       |                     | P-1 Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |     |     |  |                  |                    |         |     |     |     |     |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |       |
|---------------------------------------|------------------|---------|------|---------------|-----------------------|---------------------|---|-----|-----|--|------------------|--------------------|---------|-----|-----|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| COST ELEMENTS                         | MFR              | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98  |     |     |  |                  |                    |         |     |     |     |     |     | Fiscal Year 99   |                        |     |     |     |     |     |     |     |     |     |     | LATER |
|                                       |                  |         |      |               |                       |                     | Calendar Year 98  |     |     |  |                  |                    |         |     |     |     |     |     | Calendar Year 99 |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               |                       |                     | OCT   | NOV | DEC | JAN  | FEB              | MAR                | APR     | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |
| 1. Basic Vehicle                      | 1                | 95 & Pr | A    | 206           | 206                   |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                | FY 96   | A    | 100           | 100                   |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                | FY 97   | A    | 120           | 20                    | 100                 | 11  | 9   | 8   | 11   | 11               | 11                 | 11      | 11  | 11  | 6   |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                | FY 98   | A    | 120           | 0                     | 120                 |   |     |     |  | A                |                    |         |     |     |     | 10  | 10  | 11               | 9                      | 8   | 10  | 11  | 12  | 11  | 11  | 11  | 6   |     |     |       |
|                                       | 1                | FY 99   | A    | 120           | 0                     | 120                 |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     | A   |     |     |     |     | 11  | 10  | 99  |       |
|                                       | 1                | FY00    | A    | 120           | 0                     | 120                 |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     | 120 |     |       |
|                                       | 1                | FY01    | A    | 105           | 0                     | 105                 |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     | 105 |     |       |
|                                       | 1                | FY02    | A    | 90            | 0                     | 90                  |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     | 90  |     |       |
|                                       | 1                | FY03    | A    | 88            | 0                     | 88                  |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     | 88  |     |       |
| 2. GOE - M1A1                         | 1                | 93& Pr  | FMS  | 100           | 100                   |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                | 93& Pr  | FMS  | 32            | 32                    |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                | 93& Pr  | FMS  | 31            | 28                    | 3                   | 3   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| 3. KUWAIT - M1A2                      | 1                | 93& Pr  | FMS  | 218           | 218                   |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| TOTAL                                 |                  |         |      | 1450          | 704                   | 746                 | 14  | 9   | 8   | 11   | 11               | 11                 | 11      | 11  | 11  | 6   | 10  | 10  | 11               | 9                      | 8   | 10  | 11  | 12  | 11  | 11  | 11  | 6   | 11  | 10  | 502   |
|                                       |                  |         |      |               |                       |                     | OCT   | NOV | DEC | JAN  | FEB              | MAR                | APR     | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |
| MFR                                   | PRODUCTION RATES |         |      |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME   |     |     |  | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| NAME / LOCATION                       | MIN.             | 1-8-5   | MAX. | Prior 1 Oct.  |                       |                     | After 1 Oct.  |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| 1 LIMA ARMY TANK PLANT, LIMA, OH      | 10               | 10      | 25   | 22            | INITIAL               | 0                   | 3   | 14  | 17  | LATP is the only facility in the United States capable of producing tanks.   |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | REORDER               | 0                   | 3   | 14  | 17  | LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | INITIAL               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | REORDER               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | INITIAL               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | REORDER               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | INITIAL               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | REORDER               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | INITIAL               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                  |         |      |               | REORDER               |                     |   |     |     |  |                  |                    |         |     |     |     |     |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                |         |      |               |                       |                     | P-1 Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) |         |     |            |                 |              |              |              |  |  |         |     |                  | Date:<br>February 1998 |     |     |     |     |     |     |     |     |     |     |       |
|---------------------------------------|--------------------------------|---------|------|---------------|-----------------------|---------------------|---|---------|-----|------------|-----------------|--------------|--------------|--------------|--|--|---------|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| COST ELEMENTS                         | MFR                            | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 00  |         |     |            |                 |              |              |              |  |  |         |     | Fiscal Year 01   |                        |     |     |     |     |     |     |     |     |     |     | LATER |
|                                       |                                |         |      |               |                       |                     | Calendar Year 00  |         |     |            |                 |              |              |              |  |  |         |     | Calendar Year 01 |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     | OCT   | NOV     | DEC | JAN        | FEB             | MAR          | APR          | MAY          | JUN  | JUL  | AUG     | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |
| 1. Basic Vehicle                      | 1                              | 95 & Pr | A    | 206           | 206                   |                     |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 96   | A    | 100           | 100                   |                     |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 97   | A    | 120           | 120                   |                     |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 98   | A    | 120           | 120                   |                     |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY 99   | A    | 120           | 21                    | 99                  | 10  | 10      | 7   | 10         | 11              | 12           | 10           | 12           | 12   | 5  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       | 1                              | FY00    | A    | 120           | 0                     | 120                 |   |         |     |            |                 | A            |              |              |  |  | 11      | 9   | 11               | 9                      | 8   | 11  | 11  | 11  | 11  | 11  | 11  | 6   |     |     |       |
|                                       | 1                              | FY01    | A    | 105           | 0                     | 105                 |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     | A   |     |     |     |     | 9   | 9   | 87  |     |       |
|                                       | 1                              | FY02    | A    | 90            | 0                     | 90                  |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     | 90  |     |     |       |
|                                       | 1                              | FY03    | A    | 88            | 0                     | 88                  |   |         |     |            |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     | 88  |     |     |       |
| TOTAL                                 |                                |         |      | 1069          | 567                   | 502                 | 10  | 10      | 7   | 10         | 11              | 12           | 10           | 12           | 12   | 5  | 11      | 9   | 11               | 9                      | 8   | 11  | 11  | 11  | 11  | 11  | 11  | 6   | 9   | 9   | 265   |
|                                       |                                |         |      |               |                       |                     | OCT   | NOV     | DEC | JAN        | FEB             | MAR          | APR          | MAY          | JUN  | JUL  | AUG     | SEP | OCT              | NOV                    | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |       |
| MFR                                   | NAME / LOCATION                |         |      |               | PRODUCTION RATES      |                     |   | REACHED |     | MFR Number | ADMIN LEAD TIME |              |              |              | MFR  | TOTAL  | REMARKS |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| R                                     | NAME / LOCATION                |         |      |               | MIN.                  | 1-8-5               | MAX.  | D +     |     | INITIAL    | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. | After 1 Oct.   | LATP is the only facility in the United States capable of producing tanks. |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
| 1                                     | LIMA ARMY TANK PLANT, LIMA, OH |         |      |               | 10                    | 10                  | 25  | 22      |     | INITIAL    | 0               | 3            | 14           | 17           | LATP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | REORDER    | 0               | 3            | 14           | 17           |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | INITIAL    |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | REORDER    |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | INITIAL    |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | REORDER    |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | INITIAL    |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |
|                                       |                                |         |      |               |                       |                     |   |         |     | REORDER    |                 |              |              |              |  |  |         |     |                  |                        |     |     |     |     |     |     |     |     |     |     |       |

|  |   |                        |
|--|---|------------------------|
| <b>FY 98 / 99 BUDGET PRODUCTION SCHEDULE</b> | P-1 Item Nomenclature:<br>ABRAMS UPGRADE PROGRAM (GA0750) | Date:<br>February 1998 |
|--|---|------------------------|

| COST ELEMENTS    | MFR | FY      | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 02   |          |          |          |          |          |          |           |           |          |          |          | Fiscal Year 03   |          |          |          |          |          |          |          |          |          |          |          | L A T E R |
|------------------|-----|---------|------|---------------|-----------------------|---------------------|------------------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|                  |     |         |      |               |                       |                     | Calendar Year 02 |          |          |          |          |          |          |           |           |          |          |          | Calendar Year 03 |          |          |          |          |          |          |          |          |          |          |          |           |
|                  |     |         |      |               |                       |                     | OCT              | NOV      | DEC      | JAN      | FEB      | MAR      | APR      | MAY       | JUN       | JUL      | AUG      | SEP      | OCT              | NOV      | DEC      | JAN      | FEB      | MAR      | APR      | MAY      | JUN      | JUL      | AUG      | SEP      |           |
| 1. Basic Vehicle | 1   | 95 & Pr | A    | 206           | 206                   |                     |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY 96   | A    | 100           | 100                   |                     |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY 97   | A    | 120           | 120                   |                     |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY 98   | A    | 120           | 120                   |                     |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY 99   | A    | 120           | 120                   |                     |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY00    | A    | 120           | 120                   |                     |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY01    | A    | 105           | 18                    | 87                  | 9                | 8        | 8        | 9        | 9        | 9        | 9        | 10        | 10        | 6        |          |          |                  |          |          |          |          |          |          |          |          |          |          |          |           |
|                  | 1   | FY02    | A    | 90            | 0                     | 90                  |                  |          |          |          | A        |          |          |           |           |          | 8        | 7        | 8                | 7        | 7        | 8        | 8        | 8        | 8        | 8        | 7        | 6        |          |          |           |
|                  | 1   | FY03    | A    | 88            | 0                     | 88                  |                  |          |          |          |          |          |          |           |           |          |          |          |                  |          |          |          | A        |          |          |          | 8        | 7        | 73       |          |           |
| <b>TOTAL</b>     |     |         |      | <b>1069</b>   | <b>804</b>            | <b>265</b>          | <b>9</b>         | <b>8</b> | <b>8</b> | <b>9</b> | <b>9</b> | <b>9</b> | <b>9</b> | <b>10</b> | <b>10</b> | <b>6</b> | <b>8</b> | <b>7</b> | <b>8</b>         | <b>7</b> | <b>7</b> | <b>8</b> | <b>8</b> | <b>8</b> | <b>8</b> | <b>8</b> | <b>7</b> | <b>6</b> | <b>8</b> | <b>7</b> | <b>73</b> |

| MFR | NAME / LOCATION                | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |  |
|-----|--------------------------------|------------------|-------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---------|--|
|     |                                | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |  |
| 1   | LIMA ARMY TANK PLANT, LIMA, OH | 10               | 10    | 25   | 22          |            | INITIAL         | 0            | 3                | 14                 | 17      | LAMP is the only facility in the United States capable of producing tanks.<br><br>LAMP is interdependent and does not stand alone. FMS represents coproduction with Egypt for kits and M1A2 tanks for Kuwait (218) |
|     |                                |                  |       |      |             |            | REORDER         | 0            | 3                | 14                 | 17      |  |
|     |                                |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                                |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 0.0        |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |         |             | 1793.8     |
| Net Proc (P-1)   | 0.0         | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   |         | 0.0         | 1793.8     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 181.3   | 297.2   | 258.2   | 253.5   | 262.9   | 242.7   | 153.6   | 144.3   | 0.0     | 0.0         | 1793.8     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Advance procurement for long lead materials to support procurement for the Abrams Upgrade Program.

JUSTIFICATION: Without advance procurement funds, procurement of components, assemblies and raw materials to support procurement, long lead time would not be possible and would cause a break in production.

| <b>Advance Procurement Requirements Analysis-Funding (P-10A)</b>   |              |                      |        | First System Award Date:<br>Jul-96 |       | First System Completion Date:<br>Oct-96   |       | Date:<br>February 1998 |       |       |       |      |            |        |
|--|--------------|----------------------|--------|------------------------------------|-------|---|-------|------------------------|-------|-------|-------|------|------------|--------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |              |                      |        |                                    |       | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |       |                        |       |       |       |      |            |        |
| (\$ in Millions)   |              |                      |        |                                    |       |   |       |                        |       |       |       |      |            |        |
|  | PLT<br>(mos) | When<br>Rqd<br>(mos) | Pr Yrs | 1995                               | 1996  | 1997  | 1998  | 1999                   | 2000  | 2001  | 2002  | 2003 | To<br>Comp | Total  |
| End Item Quantity:   | *            |                      |        | 100                                | 120   | 120   | 120   | 120                    | 105   | 90    | 88    |      |            |        |
| 1. Basic Vehicle   | 18           | 6                    |        | 77.1                               | 193.0 | 142.8   | 100.2 | 116.9                  | 129.5 | 57.3  | 80.8  |      |            | 897.7  |
| 2. Armor   | 19           | 6                    |        | 20.0                               | 7.9   | 9.8   | 10.0  | 10.2                   | 10.6  | 10.8  | 2.2   |      |            | 81.7   |
| 3. H/TEU   | 13           | 6                    |        | 5.9                                | 7.2   | 6.7   |       |                        |       |       |       |      |            | 19.7   |
| 4. Engine (DECU)   | 20           | 6                    |        | 2.1                                | 2.5   | 3.1   | 3.1   | 3.1                    | 2.8   | 2.5   | 2.5   |      |            | 21.7   |
| 5. Transmission  | 19           | 6                    |        | 22.3                               | 22.4  | 23.4  | 23.6  | 24.0                   | 21.4  | 18.7  | 18.7  |      |            | 174.5  |
| 6. Final Drives  | 16           | 6                    |        | 1.4                                | 1.5   | 1.4   | 1.4   | 1.4                    | 1.3   | 1.1   | 1.1   |      |            | 10.5   |
| 7. Fire Control  | 16           | 6                    |        | 32.5                               | 39.3  | 38.8  | 1.8   | 1.8                    | 1.6   | 1.5   | 1.5   |      |            | 118.7  |
| 8. Track   | 19           | 6                    |        | 3.3                                | 5.7   | 5.7   | 5.7   | 5.8                    | 5.1   | 4.5   | 4.5   |      |            | 40.2   |
| 9. Roadwheels  | 16           | 6                    |        | 0.9                                | 1.4   | 1.4   | 1.4   | 1.4                    | 1.3   | 1.1   | 1.1   |      |            | 10.1   |
| 10. Gun Mounts   | 16           | 6                    |        | 2.1                                | 2.1   | 2.6   | 3.3   | 2.6                    | 2.4   | 2.1   | 2.1   |      |            | 19.2   |
| 11. Gun  | 16           | 6                    |        | 11.3                               | 11.4  | 10.6  | 15.4  | 12.4                   | 11.1  | 9.9   | 9.9   |      |            | 91.9   |
| 12. Driver's Night Viewer  | 13           | 6                    |        | 0.5                                | 0.6   | 0.5   | 0.6   | 0.6                    | 0.6   | 0.5   | 0.5   |      |            | 4.5    |
| 13. Basic Issue Items  | 16           | 6                    |        | 0.7                                | 0.8   | 0.7   | 0.9   | 0.8                    | 0.7   | 0.6   | 0.6   |      |            | 5.8    |
| 14. MILSTRIPS/RIK  | 16           | 6                    |        | 0.6                                | 0.5   | 0.7   | 0.7   | 0.7                    | 0.6   | 0.5   | 0.5   |      |            | 4.7    |
| 15. VIS  | 16           | 6                    |        | 0.6                                | 1.0   | 1.0   | 1.1   | 1.1                    | 1.0   | 0.9   | 0.9   |      |            | 7.7    |
| 26. II Gen FLIR  | 20           | 8                    |        |                                    |       | 9.0   | 84.3  | 80.1                   | 52.7  | 41.6  | 17.5  |      |            | 285.3  |
| 29. Industrial Base/"Shut Down"  |              |                      |        |                                    |       |   |       |                        |       |       |       |      |            |        |
| <b>Total Advance Procurement</b>   |              |                      |        | 181.3                              | 297.2 | 258.2   | 253.5 | 262.9                  | 242.7 | 153.6 | 144.3 |      |            | 1793.8 |

Description:

\* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.  
 ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.  
 PLT includes the 6 months requirement for components prior to tank delivery.

| Advance Procurement Requirements Analysis-Budget Justification (P-10B)  |              |                             |              |   |                           |                       | Date: February 1998 |                           |                       |
|---|--------------|-----------------------------|--------------|---|---------------------------|-----------------------|---------------------|---------------------------|-----------------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  |              |                             |              | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |                           |                       |                     |                           |                       |
| (\$ in Millions)  |              |                             |              |   |                           |                       |                     |                           |                       |
|   | PLT<br>(mos) | Quantity<br>Per<br>Assembly | Unit<br>Cost | 1998  |                           |                       | 1999                |                           |                       |
|   |              |                             |              | Qty   | Contract<br>Forecast Date | Total<br>Cost Request | Qty                 | Contract<br>Forecast Date | Total<br>Cost Request |
| End Item  | *            |                             |              |   |                           |                       |                     |                           |                       |
| 1. Basic Vehicle  | 18           | 1                           | 0.8          | 120   | Various                   | 100.2                 | 120                 | Various                   | 116.9                 |
| 2. Armor  | 19           | 1                           | 0.1          | 121   | Jan 98                    | 10.0                  | 121                 | Jan 99                    | 10.2                  |
| 3. H/TEU  |              |                             |              |   |                           |                       |                     |                           |                       |
| 4. Engine (DECU)  | 20           | 1                           | 0.0          | 120   | Jan 98                    | 3.1                   | 120                 | Dec 98                    | 3.1                   |
| 5. Transmission   | 19           | 1                           | 0.2          | 120   | Feb 98                    | 23.6                  | 120                 | Jan 99                    | 24.0                  |
| 6. Final Drives   | 16           | 2                           | 0.0          | 240   | Apr 98                    | 1.4                   | 240                 | Apr 99                    | 1.4                   |
| 7. Fire Control   | 16           | 1                           | 0.0          | 120   | Various                   | 1.8                   | 120                 | Various                   | 1.8                   |
| 8. Track  | 19           | 156                         | 0.0          | 18720   | Apr 98                    | 5.7                   | 18720               | Nov 98                    | 5.8                   |
| 9. Roadwheels   | 16           | 32                          | 0.0          | 3840  | Apr 98                    | 1.4                   | 3840                | Apr 99                    | 1.4                   |
| 10. Gun Mounts  | 16           | 1                           | 0.1          | 60  | Apr 98                    | 3.3                   | 60                  | Apr 99                    | 2.6                   |
| 11. Gun   | 16           | 1                           | 0.1          | 120   | Apr 98                    | 15.4                  | 120                 | Apr 99                    | 12.4                  |
| 12. Driver's Night Viewer   | 13           | 1                           | 0.0          | 120   | Jul 98                    | 0.6                   | 120                 | Jul 99                    | 0.6                   |
| 13. Basic Issue Items   | 16           | 1                           | 0.0          | 120   | Apr 98                    | 0.9                   | 120                 | Apr 99                    | 0.8                   |
| 14. MILSTRIPS/RIK   | 16           | 1                           | 0.0          | 120   | Various                   | 0.7                   | 120                 | Various                   | 0.7                   |
| 15. VIS   | 16           | 1                           | 0.0          | 120   | Jun 98                    | 1.1                   | 120                 | Apr 99                    | 1.1                   |
| 26. II Gen FLIR   | 20           | 1                           | 0.7          | 120   | Jan 98                    | 84.3                  | 120                 | Dec 98                    | 80.1                  |
| <b>Total Advance Procurement</b>  |              |                             |              |   |                           | 253.5                 |                     |                           | 262.9                 |
| <b>Description:</b><br>* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.<br>ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.<br>PLT includes the 6 months requirement for components prior to tank delivery. |              |                             |              |   |                           |                       |                     |                           |                       |

| Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)   |        |      |      |      |      |   |      |      |      |      | Date: February 1998 |       |
|--|--------|------|------|------|------|---|------|------|------|------|---------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |        |      |      |      |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |      |      |      |      |                     |       |
| (\$ in Millions)   |        |      |      |      |      |   |      |      |      |      |                     |       |
|  | Pr Yrs | 1995 | 1996 | 1997 | 1998 | 1999  | 2000 | 2001 | 2002 | 2003 | To Comp             | Total |
| <b>Proposal w/o AP</b>   |        |      |      |      |      |   |      |      |      |      |                     |       |
| Then Year Cost   | 658    | 132  | 440  | 501  | 587  | 666   | 668  | 630  | 596  | 675  | 344                 | 5897  |
| Constant Year Cost   | 692    | 136  | 447  | 502  | 578  | 651   | 642  | 595  | 552  | 613  | 303                 | 5711  |
| Present Value  | 762    | 146  | 466  | 509  | 571  | 625   | 599  | 540  | 488  | 527  | 251                 | 5482  |
| <b>AP Proposal</b>   |        |      |      |      |      |   |      |      |      |      |                     |       |
| Then Year Cost   | 692    | 280  | 556  | 462  | 582  | 676   | 647  | 541  | 586  | 531  | 344                 | 5897  |
| Constant Year Cost   | 753    | 289  | 564  | 463  | 574  | 660   | 622  | 511  | 543  | 482  | 303                 | 5764  |
| Present Value  | 871    | 310  | 588  | 469  | 566  | 634   | 581  | 464  | 480  | 414  | 251                 | 5626  |
| <b>AP Savings (Difference)</b>   |        |      |      |      |      |   |      |      |      |      |                     |       |
| Then Year Cost   | 34     | 148  | 116  | -39  | -5   | 9   | -20  | -89  | -9   | -144 |                     |       |
| Constant Year Cost   | 61     | 153  | 118  | -39  | -5   | 9   | -20  | -84  | -9   | -131 |                     | 53    |
| Present Value  | 109    | 164  | 123  | -40  | -5   | 9   | -18  | -76  | -8   | -113 |                     | 145   |
| Remarks:   |        |      |      |      |      |   |      |      |      |      |                     |       |



**Advance Procurement Requirements Analysis-Execution (P-10D)** Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles** P-1 Line Item Nomenclature / Weapon System: **ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)**

| (\$ in Millions)                 |              |       |                              |                            |                          |                            |       |                              |                            |                          |                            |       |                              |       |                              |
|----------------------------------|--------------|-------|------------------------------|----------------------------|--------------------------|----------------------------|-------|------------------------------|----------------------------|--------------------------|----------------------------|-------|------------------------------|-------|------------------------------|
|                                  | PLT<br>(mos) | 1996  |                              |                            |                          |                            | 1997  |                              |                            |                          |                            | 1998  |                              | 1999  |                              |
|                                  |              | Qty   | Contract<br>Forecast<br>Date | Actual<br>Contract<br>Date | Total<br>Cost<br>Request | Actual<br>Contract<br>Cost | Qty   | Contract<br>Forecast<br>Date | Actual<br>Contract<br>Date | Total<br>Cost<br>Request | Actual<br>Contract<br>Cost | Qty   | Contract<br>Forecast<br>Date | Qty   | Contract<br>Forecast<br>Date |
| End Item                         | *            |       |                              |                            |                          |                            |       |                              |                            |                          |                            |       |                              |       |                              |
| 1. Basic Vehicle                 | 18           | 120   | Various                      | Various                    | 193.0                    | 193                        | 120   | Various                      | Various                    | 142.8                    | 142.7                      | 120   | Various                      | 120   | Various                      |
| 2. Armor                         | 19           | 122   | Mar-96                       | Mar-96                     | 7.9                      | 8                          | 121   | Mar-97                       | Feb-97                     | 9.8                      | 9.8                        | 120   | Jan-98                       | 120   | Jan-99                       |
| 3. H/TEU                         |              | 240   | May-96                       | May-96                     | 7.2                      | 7                          | 240   | Mar-97                       | Mar-97                     | 6.7                      | 6.7                        |       |                              |       |                              |
| 4. Engine (DECU)                 | 20           | 120   | Mar-96                       | Mar-96                     | 2.5                      | 3                          | 120   | Mar-97                       | Apr-97                     | 3.1                      | 3.1                        | 120   | Jan-98                       | 120   | Dec-98                       |
| 5. Transmission                  | 19           | 120   | Dec-95                       | Various                    | 22.4                     | 22                         | 120   | Dec-96                       | Sep-97                     | 23.4                     | 23.4                       | 120   | Feb-98                       | 120   | Jan-98                       |
| 6. Final Drives                  | 16           | 240   | Mar-96                       | Nov-95                     | 1.5                      | 1                          | 240   | Mar-97                       | Jan-97                     | 1.4                      | 1.4                        | 240   | Apr-98                       | 240   | Apr-99                       |
| 7. Fire Control                  | 16           | 120   | Various                      | Various                    | 39.3                     | 39                         | 120   | Various                      | Various                    | 38.8                     | 38.8                       | 120   | Various                      | 120   | Various                      |
| 8. Track                         | 19           | 18720 | Mar-96                       | Mar-96                     | 5.7                      | 6                          | 18720 | Mar-97                       | Nov-96                     | 5.7                      | 5.7                        | 18720 | Apr-98                       | 18720 | Nov-98                       |
| 9. Roadwheels                    | 16           | 3840  | Mar-96                       | Mar-96                     | 1.4                      | 1                          | 3840  | Mar-97                       | Dec-96                     | 1.4                      | 1.4                        | 3840  | Apr-98                       | 3840  | Apr-99                       |
| 10. Gun Mounts                   | 16           | 60    | Mar-96                       | Mar-96                     | 2.1                      | 2                          | 60    | Mar-97                       | Feb-97                     | 2.6                      | 2.6                        | 60    | Apr-98                       | 60    | Apr-99                       |
| 11. Gun                          | 16           | 120   | Apr-96                       | Apr-96                     | 11.4                     | 11                         | 120   | Mar-97                       | Mar-97                     | 10.6                     | 10.6                       | 120   | Apr-98                       | 120   | Apr-99                       |
| 12. Driver's Night Viewer        | 13           | 120   | Apr-96                       | Jun-96                     | 0.6                      | 1                          | 120   | Jul-97                       | Sep-97                     | 0.5                      | 0.6                        | 120   | Jul-98                       | 120   | Jul-99                       |
| 13. Basic Issue Items            | 16           | 120   | Mar-96                       | May-96                     | 0.8                      | 1                          | 120   | May-97                       | Feb-97                     | 0.7                      | 0.8                        | 120   | Apr-98                       | 120   | Apr-99                       |
| 14. MILSTRIPS/RIK                | 16           | 120   | Various                      | Various                    | 0.5                      | 0                          | 120   | Various                      | Various                    | 0.7                      | 0.5                        | 120   | Various                      | 120   | Various                      |
| 15. VIS                          | 16           | 120   | Apr-96                       | May-96                     | 1.0                      | 1                          | 120   | Apr-97                       | Apr-97                     | 1.0                      | 1.0                        | 120   | Jun-98                       | 120   | Apr-99                       |
| 26. II Gen FLIR                  | 20           |       |                              |                            |                          |                            |       | Feb-97                       | Apr-97                     | 9.0                      | 9.0                        | 120   | Jan-98                       | 120   | Dec-98                       |
| <b>Total Advance Procurement</b> |              |       |                              |                            | 297.2                    | 297.2                      |       |                              |                            | 258.2                    | 258.2                      |       |                              |       |                              |

**Description:**  
 \* PLT excludes First Article Test (FAT) or other special test requirements for new producers or other factors.  
 ALT is based on current long term contracts. ALT increase with new starts/new contractors/new contracts.

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |               |       |     |      |      |     |   |      |      |     |       |      | Date: February 1998 |                      |       |
|--|---------------|-------|-----|------|------|-----|---|------|------|-----|-------|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |               |       |     |      |      |     | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |      |      |     |       |      |                     |                      |       |
| (\$ in Millions)   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
|  | Total Program | FY 96 |     |      |      |     |   |      |      |     |       |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |               | 1995  |     |      | 1996 |     |   |      |      |     |       |      |                     |                      |       |
|  |               | Oct   | Nov | Dec  | Jan  | Feb | Mar   | Apr  | May  | Jun | Jul   | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 297.2         |       | 1.1 | 23.5 | 28.8 | 4.6 | 37.0  | 15.3 | 12.0 | 1.3 | 168.4 | 5.2  |                     | 297.2                | .0    |
| Actual   | 297.2         |       | 1.1 | 23.5 | 28.8 | 4.6 | 33.6  | 17.0 | 8.2  | .8  | .8    | 84.1 | 65.4                | 267.9                | 29.3  |
| Exp Plan   | 297.2         |       |     |      |      |     |   | .4   | .4   | .8  |       | 5.1  | 5.1                 | 11.8                 | 285.4 |
| Actual   | 297.2         |       |     |      |      |     |   | .4   | .4   | .8  |       | 4.5  | 7.0                 | 13.1                 | 284.1 |
| <b>FY 97</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| Actual   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| Exp Plan   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| Actual   | 258.2         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 258.2 |
| <b>FY 98</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 253.5         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 253.5 |
| <b>FY 99</b>   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |
| Obl Plan   | 262.9         |       |     |      |      |     |   |      |      |     |       |      |                     |                      | 262.9 |
| Narrative:   |               |       |     |      |      |     |   |      |      |     |       |      |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |      |      |   |      |      |      |      |      |      | Date: February 1998 |                      |       |
|--|------------------|-------|-----|------|------|---|------|------|------|------|------|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |      |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |      |      |      |      |      |      |                     |                      |       |
| (\$ in Millions)   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
|  | Starting Balance | FY 97 |     |      |      |   |      |      |      |      |      |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 1996  |     |      | 1997 |   |      |      |      |      |      |      |                     |                      |       |
|  |                  | Oct   | Nov | Dec  | Jan  | Feb   | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | .0               |       |     |      |      |   |      |      |      |      |      |      |                     |                      | .0    |
| Actual   | 29.3             |       |     | 1.0  | 11.2 | 11.9  |      | -1.9 | -7   | 7.8  | .0   | .0   | .0                  | 29.3                 | .0    |
| Exp Plan   | 285.4            | 9.4   | 9.4 | 9.4  | 9.4  | 9.4   | 9.4  | 9.4  | 9.4  | 9.5  | 9.5  | 9.4  | 9.4                 | 113.0                | 172.4 |
| Actual   | 284.1            | 5.0   | 8.3 | 2.9  | 3.0  | 15.1  | 6.5  | 24.5 | 12.9 | 13.3 | 19.0 | 14.2 | 6.1                 | 130.8                | 153.3 |
| <b>FY 97</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | 258.2            |       | 5.7 | 10.7 | 7.1  | 46.1  | 25.1 | 33.4 | 3.5  | 6.0  | 39.2 | 42.4 | 39.0                | 258.2                | .0    |
| Actual   | 258.2            |       | 5.7 | 10.7 | 33.1 | 41.0  | 20.4 | 12.5 | 2.6  |      | .2   | 69.0 | 61.3                | 256.5                | 1.7   |
| Exp Plan   | 258.2            |       |     |      | 2.0  | 2.0   | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  | 2.0  | 2.2                 | 18.2                 | 240.0 |
| Actual   | 258.2            |       |     |      |      | .2  | .7   |      | 1.2  | 2.8  | 5.4  | 1.1  | 3.1                 | 14.5                 | 243.7 |
| <b>FY 98</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | 253.5            |       |     |      |      |   |      |      |      |      |      |      |                     |                      | 253.5 |
| <b>FY 99</b>   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |
| Obl Plan   | 262.9            |       |     |      |      |   |      |      |      |      |      |      |                     |                      | 262.9 |
| Narrative:   |                  |       |     |      |      |   |      |      |      |      |      |      |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |      |      |       |   |     |      |     |     |     |      | Date: February 1998 |                      |       |
|--|------------------|-------|------|------|-------|---|-----|------|-----|-----|-----|------|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |      |      |       | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |      |     |     |     |      |                     |                      |       |
| (\$ in Millions)   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
|  | Starting Balance | FY 98 |      |      |       |   |     |      |     |     |     |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 1997  |      |      | 1998  |   |     |      |     |     |     |      |                     |                      |       |
|  |                  | Oct   | Nov  | Dec  | Jan   | Feb   | Mar | Apr  | May | Jun | Jul | Aug  | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |      |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Actual   | .0               |       | .0   | .0   |       |   |     |      |     |     |     |      |                     | .0                   | .0    |
| Exp Plan   | 172.4            | 8.6   | 8.6  | 8.6  | 8.6   | 8.7   | 8.7 | 8.7  | 8.7 | 8.7 | 8.7 | 8.7  | 8.7                 | 104.0                | 68.4  |
| Actual   | 159.4            | 11.7  | 29.2 | 13.1 |       |   |     |      |     |     |     |      |                     | 54.0                 | 105.4 |
| <b>FY 97</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | .0               |       |      |      |       |   |     |      |     |     |     |      |                     |                      | .0    |
| Actual   | 1.7              | .0    | 1.4  |      |       |   |     |      |     |     |     |      |                     | 1.5                  | .2    |
| Exp Plan   | 240.0            | 8.0   | 8.0  | 8.0  | 8.0   | 8.0   | 8.0 | 8.0  | 8.0 | 8.0 | 8.0 | 8.0  | 8.0                 | 96.0                 | 144.0 |
| Actual   | 246.8            | 3.0   | 7.8  | 11.5 |       |   |     |      |     |     |     |      |                     | 22.2                 | 224.5 |
| <b>FY 98</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | 253.5            |       |      |      | 174.1 | 23.6  |     | 29.0 | 8.0 | 2.0 | 1.1 | 13.8 | 1.9                 | 253.5                | .0    |
| <b>FY 99</b>   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |
| Obl Plan   | 262.9            |       |      |      |       |   |     |      |     |     |     |      |                     |                      | 262.9 |
| Narrative:   |                  |       |      |      |       |   |     |      |     |     |     |      |                     |                      |       |

**Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)** Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles** P-1 Line Item Nomenclature / Weapon System: **ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750)**

(\$ in Millions)

|              | Starting Balance | FY 99 |     |      |       |     |     |      |     |     |     |      | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|--------------|------------------|-------|-----|------|-------|-----|-----|------|-----|-----|-----|------|---------------------|----------------------|-------|
|              |                  | 1998  |     |      | 1999  |     |     |      |     |     |     |      |                     |                      |       |
|              |                  | Oct   | Nov | Dec  | Jan   | Feb | Mar | Apr  | May | Jun | Jul | Aug  |                     |                      | Sep   |
| <b>FY 96</b> |                  |       |     |      |       |     |     |      |     |     |     |      |                     |                      |       |
| Obl Plan     | .0               |       |     |      |       |     |     |      |     |     |     |      |                     |                      | .0    |
| Actual       | .0               |       |     |      |       |     |     |      |     |     |     |      |                     |                      | .0    |
| Exp Plan     | 68.4             | 2.8   | 2.9 | 2.8  | 2.8   | 2.8 | 2.8 | 2.9  | 2.8 | 2.9 | 2.9 | 2.9  | 2.9                 | 34.2                 | 34.2  |
| Actual       | 159.4            |       |     |      |       |     |     |      |     |     |     |      |                     |                      | 159.4 |
| <b>FY 97</b> |                  |       |     |      |       |     |     |      |     |     |     |      |                     |                      |       |
| Obl Plan     | .0               |       |     |      |       |     |     |      |     |     |     |      |                     |                      | .0    |
| Actual       | 63.0             |       |     |      |       |     |     |      |     |     |     |      |                     |                      | 63.0  |
| Exp Plan     | 144.0            | 7.3   | 7.4 | 7.3  | 7.3   | 7.3 | 7.3 | 7.3  | 7.4 | 7.3 | 7.4 | 7.4  | 7.4                 | 88.1                 | 55.9  |
| Actual       | 246.8            |       |     |      |       |     |     |      |     |     |     |      |                     |                      | 246.8 |
| <b>FY 98</b> |                  |       |     |      |       |     |     |      |     |     |     |      |                     |                      |       |
| Obl Plan     | .0               |       |     |      |       |     |     |      |     |     |     |      |                     |                      | .0    |
| <b>FY 99</b> |                  |       |     |      |       |     |     |      |     |     |     |      |                     |                      |       |
| Obl Plan     | 262.9            |       | 5.8 | 77.6 | 140.2 |     |     | 19.6 | 1.4 | 3.7 | .6  | 11.8 | 2.2                 | 262.9                | .0    |

Narrative:

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |     |      |   |     |     |     |     |     |     | Date: February 1998 |                      |       |
|--|------------------|-------|-----|-----|------|---|-----|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |     |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |     |     |     |     |     |                     |                      |       |
| (\$ in Millions)   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
|  | Starting Balance | FY 00 |     |     |      |   |     |     |     |     |     |     | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 1999  |     |     | 2000 |   |     |     |     |     |     |     |                     |                      |       |
|  |                  | Oct   | Nov | Dec | Jan  | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Exp Plan   | 34.2             | 1.4   | 1.4 | 1.4 | 1.4  | 1.4   | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5                 | 17.2                 | 17.0  |
| Actual   | 159.4            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 159.4 |
| <b>FY 97</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 63.0             |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 63.0  |
| Exp Plan   | 55.9             | 2.4   | 2.4 | 2.4 | 2.4  | 2.4   | 2.4 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3                 | 28.2                 | 27.7  |
| Actual   | 246.8            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 246.8 |
| <b>FY 98</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| <b>FY 99</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Narrative:   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |     |      |   |     |     |     |     |     |     | Date: February 1998 |                      |       |
|--|------------------|-------|-----|-----|------|---|-----|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |     |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |     |     |     |     |     |                     |                      |       |
| (\$ in Millions)   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
|  | Starting Balance | FY 01 |     |     |      |   |     |     |     |     |     |     | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 2000  |     |     | 2001 |   |     |     |     |     |     |     |                     |                      |       |
|  |                  | Oct   | Nov | Dec | Jan  | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Exp Plan   | 17.0             | 1.3   | 1.3 | 1.3 | 1.3  | 1.3   | 1.3 | 1.3 | 1.3 | 1.3 | 1.8 | 1.8 | 1.7                 | 17.0                 | .0    |
| Actual   | 159.4            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 159.4 |
| <b>FY 97</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 63.0             |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 63.0  |
| Exp Plan   | 27.7             | 1.3   | 1.3 | 1.3 | 1.3  | 1.3   | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3                 | 15.6                 | 12.1  |
| Actual   | 246.8            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 246.8 |
| <b>FY 98</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| <b>FY 99</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Narrative:   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)                                       |                  |       |     |     |      |   |     |     |     |     |     |     | Date: February 1998 |                      |       |
|--|------------------|-------|-----|-----|------|---|-----|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles |                  |       |     |     |      | P-1 Line Item Nomenclature / Weapon System:<br>ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) |     |     |     |     |     |     |                     |                      |       |
| (\$ in Millions)   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
|  | Starting Balance | FY 02 |     |     |      |   |     |     |     |     |     |     | Total Obl/Exp (Cum) | Ending Balance (Cum) |       |
|  |                  | 2001  |     |     | 2002 |   |     |     |     |     |     |     |                     |                      |       |
|  |                  | Oct   | Nov | Dec | Jan  | Feb   | Mar | Apr | May | Jun | Jul | Aug | Sep                 |                      |       |
| <b>FY 96</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Exp Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 159.4            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 159.4 |
| <b>FY 97</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| Actual   | 63.0             |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 63.0  |
| Exp Plan   | 12.1             | 1.1   | 1.1 | 1.1 | 1.1  | 1.1   | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.0 |                     | 12.1                 | .0    |
| Actual   | 246.8            |       |     |     |      |   |     |     |     |     |     |     |                     |                      | 246.8 |
| <b>FY 98</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   | .0               |       |     |     |      |   |     |     |     |     |     |     |                     |                      | .0    |
| <b>FY 99</b>   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Obl Plan   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |
| Narrative:   |                  |       |     |     |      |   |     |     |     |     |     |     |                     |                      |       |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: M1A2 TANK TRAINING DEVICES (GB1302)

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 22.9        | 16.8    | 6.1     | 12.5    | 13.1    | 13.4    | 8.2     | 10.8    | 12.1    | 12.4    | 27.0        | 155.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 22.9        | 16.8    | 6.1     | 12.5    | 13.1    | 13.4    | 8.2     | 10.8    | 12.1    | 12.4    | 27.0        | 155.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 22.9        | 16.8    | 6.1     | 12.5    | 13.1    | 13.4    | 8.2     | 10.8    | 12.1    | 12.4    | 27.0        | 155.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: The family of M1A2 Training Aids, Devices, Simulators and Simulations (TADSS) will replicate actual tank performance without incurring the much higher costs of operating the tank itself.

- Advance Gunnery Training System (AGTS) - These are precision gunnery trainers which provide realistic commander and gunner training under varying scenarios.
- Maintenance Trainers - These systems provide training in essential unit and direct support/general support tasks. There are four different trainers: M1A2 Hands-on-Trainer (HOT); Hull Electrical Diagnostic/Troubleshooting (D/T) Trainer; Turret/Fire Control D/T Trainer; and Direct Support Electrical System Test Set Line Replaceable Unit (DSESTS LRU) simulators. The students (approximately 600/yr) will learn about the sub-systems and procedures for troubleshooting and fault isolating the tank system. The intended sites are Ft. Knox and Aberdeen Proving Grounds.
- SEP Integration - This funding provides for integration of SEP improvements into the various training devices impacted by those changes on the tank.

JUSTIFICATION: Fielding of the M1A2 Main Battle Tank requires concurrent fielding of a training support package. It is not cost effective to provide effective, realistic training on the M1A2 tanks through the operational use of the vehicle. Realistic training on a family of training devices simply makes better economic sense.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |              |            |             |              | P-1 Line Item Nomenclature:<br>M1A2 TANK TRAINING DEVICES (GB1302) |             |              | Weapon System Type: |             | Date:<br>February 1998 |            |             |
|---|--|--|--------------|------------|-------------|--------------|--|-------------|--------------|---------------------|-------------|------------------------|------------|-------------|
| <b>WTCV<br/>Cost Elements</b>                     |  | ID   | <b>FY 96</b> |            |             | <b>FY 97</b> |  |             | <b>FY 98</b> |                     |             | <b>FY 99</b>           |            |             |
|   |  | CD   | TotalCost    | Qty        | UnitCost    | TotalCost    | Qty  | UnitCost    | TotalCost    | Qty                 | UnitCost    | TotalCost              | Qty        | UnitCost    |
|   |  |  | \$000        | Each       | \$000       | \$000        | Each   | \$000       | \$000        | Each                | \$000       | \$000                  | Each       | \$000       |
| Advance Gunnery Training System (AGTS)            |  | A  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 1) Production                                     |  |  | 1819         |            |             | 5684         |  |             | 7700         |                     |             | 8800                   |            |             |
| 2) Government Support                             |  |  | 206          |            |             | 550          |  |             | 550          |                     |             | 400                    |            |             |
| 3) First Article Test                             |  |  | 268          |            |             |              |  |             |              |                     |             | 300                    |            |             |
| 4) Non Recurring Cost                             |  |  | 2907         |            |             | 1171         |  |             | 1768         |                     |             |                        |            |             |
| <b>SUBTOTAL</b>                                   |  |  | <b>5200</b>  | <b>2</b>   | <b>2600</b> | <b>7405</b>  | <b>6</b>   | <b>1234</b> | <b>10018</b> | <b>7</b>            | <b>1431</b> | <b>9500</b>            | <b>8</b>   | <b>1188</b> |
| M1A2 Maintenance Trainers                         |  | A  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 1) Production                                     |  |  | 750          |            |             |              |  |             |              |                     |             |                        |            |             |
| 2) Government Support                             |  |  | 183          |            |             |              |  |             |              |                     |             |                        |            |             |
| 3) First Article Test                             |  |  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| <b>SUBTOTAL</b>                                   |  |  | <b>933</b>   | <b>VAR</b> | <b>VAR</b>  |              |  |             |              |                     |             |                        |            |             |
| M1A2 Non System Integration Kits                  |  | A  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 1) Production                                     |  |  |              |            |             | 1779         |  |             |              |                     |             |                        |            |             |
| 2) Government Support                             |  |  |              |            |             | 162          |  |             |              |                     |             |                        |            |             |
| 3) First Article Test                             |  |  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| <b>SUBTOTAL</b>                                   |  |  |              |            |             | <b>1941</b>  | <b>VAR</b>   | <b>VAR</b>  |              |                     |             |                        |            |             |
| M1A2 Software Upgrades                            |  | A  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 1) Production                                     |  |  |              |            |             |              |  |             | 100          |                     |             | 100                    |            |             |
| 2) Government Support                             |  |  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 3) First Article Test                             |  |  |              |            |             | 100          |  |             | 825          |                     |             | 825                    |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |             | 380          |  |             |              |                     |             |                        |            |             |
| <b>SUBTOTAL</b>                                   |  |  |              |            |             | <b>480</b>   | <b>VAR</b>   | <b>VAR</b>  | <b>925</b>   | <b>VAR</b>          | <b>VAR</b>  | <b>925</b>             | <b>VAR</b> | <b>VAR</b>  |
| SEP Integration                                   |  | A  |              |            |             |              |  |             |              |                     |             |                        |            |             |
| 1) Production                                     |  |  |              |            |             |              |  |             | 633          |                     |             | 2836                   |            |             |
| 2) Government Support                             |  |  |              |            |             |              |  |             | 50           |                     |             | 50                     |            |             |
| 3) First Article Test                             |  |  |              |            |             |              |  |             |              |                     |             | 100                    |            |             |
| 4) Non Recurring Cost                             |  |  |              |            |             | 2720         |  |             | 1450         |                     |             |                        |            |             |
| <b>SUBTOTAL</b>                                   |  |  |              |            |             | <b>2720</b>  | <b>VAR</b>   | <b>VAR</b>  | <b>2133</b>  | <b>VAR</b>          | <b>VAR</b>  | <b>2986</b>            | <b>VAR</b> | <b>VAR</b>  |
| <b>TOTAL</b>                                      |  |  | <b>6133</b>  |            |             | <b>12546</b> |  |             | <b>13076</b> |                     |             | <b>13411</b>           |            |             |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked**  
 Weapon System Type: **Combat Vehicles**  
 P-1 Line Item Nomenclature: **M1A2 TANK TRAINING DEVICES (GB1302)**

| WBS Cost Elements:<br>Fiscal Years            | Contractor and Location      | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|---|------------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>Advance Gunnery Training System (AGTS)</b> |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY96  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Feb-96     | Jul-97                 | 2        | 2600            | Yes              | No               | N/A            |
| FY97  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Feb-97     | Apr-98                 | 6        | 1234            | Yes              | No               | N/A            |
| FY98  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Mar-98     | Mar-00                 | 7        | 1431            |                  |                  | N/A            |
| FY99  | Lockheed Martin, Orlando, FL | C-FPI                    | STRICOM         | Jan-99     | Mar-01                 | 8        | 1188            |                  |                  | N/A            |
| <b>M1A2 Maintenance Trainers</b>              |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY96  | Contraves, Tampa, FL         | C-FFP                    | STRICOM         | Mar-96     | Mar-98                 | VAR      | VAR             | Yes              | No               | N/A            |
| <b>M1A2 Non System Integration Kits 1/</b>    |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY97  | Various                      | C-FFP                    | STRICOM         | Mar-97     | Jun-98                 | VAR      | VAR             | No               | No               | N/A            |
| <b>M1A2 Software Upgrades 2/</b>              |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY97  | Various                      | C-FFP                    | STRICOM         | Dec-96     | Dec-97                 | VAR      | VAR             | No               | No               | N/A            |
| FY98  | Various                      | C-FFP                    | STRICOM         | Dec-97     | Dec-98                 | VAR      | VAR             | No               | No               | N/A            |
| FY99  | Various                      | C-FFP                    | STRICOM         | Dec-98     | Dec-99                 | VAR      | VAR             | No               | No               | N/A            |
| <b>SEP Integration</b>                        |                              |                          |                 |            |                        |          |                 |                  |                  |                |
| FY97  | Lockheed Martin, Orlando, FL | C-PIF                    | STRICOM         | Jun-97     | NA                     | VAR      | VAR             | No               | No               | N/A            |
| FY98  | Lockheed Martin, Orlando, FL | C-PIF                    | STRICOM         | Feb-98     | NA                     | VAR      | VAR             | No               | No               | N/A            |
| FY99  | Lockheed Martin, Orlando, FL | C-PIF                    | STRICOM         | Feb-99     | Mar-00                 | VAR      | VAR             | No               | No               | N/A            |

**REMARKS:** 1/ M1A2 Non-System Integration Kits provide system unique kits allowing the installation of Non-System Training Devices, such as Thru Sight Video (TSV), Tank Weapon Gun Simulation System (TWGSS), Precision Range Integrated Maneuver Exercise (PRIME), and Multiple Integrated Laser Engagement System (MILES) onto the M1A2 tank.

2/ M1A2 trainer software upgrades update M1A2 training devices to keep pace with changes in the M1A2 tank.







**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: M16 RIFLE (G14900)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 490368      | 20473   | 31826   | 15583   | 11297   | 16067   | 22848   | 7472    |         |         |             | 615934     |
| Gross Cost       | 224.5       | 9.8     | 13.1    | 6.5     | 5.0     | 6.8     | 9.8     | 4.9     | 0.0     | 0.0     | 0.0         | 280.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 224.5       | 9.8     | 13.1    | 6.5     | 5.0     | 6.8     | 9.8     | 4.9     | 0.0     | 0.0     | 0.0         | 280.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 224.5       | 9.8     | 13.1    | 6.5     | 5.0     | 6.8     | 9.8     | 4.9     | 0.0     | 0.0     | 0.0         | 280.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M16A2 Rifle, 5.56mm, is a gas operated, air cooled, magazine fed, selective rate shoulder fired weapon. It is fed by a 30 round aluminum magazine and is designed for use as the primary infantry weapon. The M16A2 is an improved version the M16A1 Rifle. Improvements include: strengthened plastic handguard, rifle stock and pistol grip to increase durability of the weapon, interchangeable handguard halves, muzzle brake compensator which reduces the raise or jump of the muzzle when fired, a burst control device limiting the automatic fire to a maximum of three rounds per trigger pull, and adjustable rear sight and square front sight post for a more distinct sight picture, a brass deflector to prevent hot brass cartridge casings from hitting left-handed shooters, and a stronger barrel reinforced with additional metal and a change in the twist ratio of the bore to accommodate NATO standard 5.56mm ammunition. The maximum effective range of the M16A2 has increased from 460 to 550 meters.

**JUSTIFICATION:** The M16A2 Rifle Program for FY99 provides additional rifles for fielding against the Force Modernization requirement for pure fleeting the field with the M16A2 Rifle. Without additional M16A2 Rifles, a logistic problem associated with different ammunition requirements for the M16A1 vs M16A2 is perpetuated. Funding also supports the M16 Rifle Industrial Base.

| <b>Exhibit P-5, Weapon<br/>WTCV Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |       |          | P-1 Line Item Nomenclature:<br>M16 RIFLE (G14900) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----------|---|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>WTCV<br/>Cost Elements</b>                     | ID<br>CD | <b>FY 96</b>  |       |          | <b>FY 97</b>                                      |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
|   |          | TotalCost   | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |          | \$000   | Each  | \$       | \$000   | Each  | \$       | \$000               | Each  | \$       | \$000                  | Each  | \$       |
| 1. Rifle (Includes Slings and Magazines)          | A        | 12667   | 31813 | 398      | 4109  | 10320 | 398      | 4499                | 11297 | 398      | 6397                   | 16067 | 398      |
| Refurbished Rifles                                |          | 3   | 13    | 231      | 1480  | 3715  | 398      |                     |       |          |                        |       |          |
| 2. Engineering Support<br>- In House Support      |          |   |       |          |   |       |          | 266                 |       |          | 256                    |       |          |
| 3. Engineering Change Proposals                   |          | 8   |       |          | 60  |       |          | 63                  |       |          | 92                     |       |          |
| 4. Quality Assurance (ARDEC)                      |          | 47  |       |          | 45  |       |          | 63                  |       |          | 54                     |       |          |
| 5. Integrated Logistics Support                   |          | 65  |       |          | 65  |       |          | 74                  |       |          |                        |       |          |
| 6. Testing (TECOM)                                |          | 131   |       |          | 130   |       |          |                     |       |          |                        |       |          |
| 7. Fielding                                       |          | 133   |       |          | 18  |       |          | 19                  |       |          | 30                     |       |          |
| <b>TOTAL</b>                                      |          | <b>13054</b>  |       |          | <b>6523</b>                                       |       |          | <b>4984</b>         |       |          | <b>6829</b>            |       |          |



**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 Weapon System Type: M16 RIFLE (G14900)  
 P-1 Line Item Nomenclature: M16 RIFLE (G14900)

| WBS Cost Elements:<br>Fiscal Years                | Contractor and Location        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|---|--------------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| 1. Rifle (Includes Slings and Magazines)<br>FY 96 | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(1)         | ACALA           | Aug-96     | Jan-97                 | 31813    | 398          | Yes              | No               |                |
|   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(1)         | ACALA           | Aug-96     | Jan-97                 | 13       | 231          | Yes              | No               |                |
| FY 97   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(2)         | ACALA           | Dec-96     | Jan-99                 | 10320    | 398          | Yes              | No               |                |
|   | FN Mfg. Co., Inc. Columbia, SC | Option                   | ACALA           | Dec-96     | Aug-99                 | 1548     | 398          | Yes              | No               |                |
|   | FN Mfg. Co., Inc. Columbia, SC | Option                   | ACALA           | Aug-97     | Sep-99                 | 3715     | 398          | Yes              | No               |                |
| FY 98   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(3)         | ACALA           | Jan-98     | Dec-99                 | 11297    | 398          | Yes              | No               |                |
| FY 99   | FN Mfg. Co., Inc. Columbia, SC | SS/FFP<br>M-5(4)         | ACALA           | Jan-99     | Jul-00                 | 16067    | 398          | Yes              | No               |                |

REMARKS:



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                                  |         |      |                  |                       | P-1 Item Nomenclature: M16 RIFLE (G14900) |                  |            |                 |              |              |              |       |  |     |     | Date: February 1998 |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|---------------------------------------|----------------------------------|---------|------|------------------|-----------------------|---|------------------|------------|-----------------|--------------|--------------|--------------|-------|--|-----|-----|---------------------|-----|------------------|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR                              | FY      | SERV | PROC QTY Each    | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT                       | Fiscal Year 98   |            |                 |              |              |              |       |  |     |     |                     |     | Fiscal Year 99   |     |     |     |     |      |      |     |     |     |     |     | L A T E R |
|                                       |                                  |         |      |                  |                       |   | Calendar Year 98 |            |                 |              |              |              |       |  |     |     |                     |     | Calendar Year 99 |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       |                                  |         |      |                  |                       |   | OCT              | NOV        | DEC             | JAN          | FEB          | MAR          | APR   | MAY  | JUN | JUL | AUG                 | SEP | OCT              | NOV | DEC | JAN | FEB | MAR  | APR  | MAY | JUN | JUL | AUG | SEP |           |
| Hardware                              | 1                                | 95 & Pr | A    | 498.8            | 498.8                 |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 2                                | 95 & Pr | A    | 12.0             | 12.0                  |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | 95 & Pr | MC   | 26.1             | 26.1                  |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | 95 & Pr | N    | 7.4              | 7.4                   |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 2                                | 95 & Pr | N    | 8.6              | 8.6                   |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | 95 & Pr | AF   | 29.0             | 29.0                  |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | 95 & Pr | SDAF | 20.0             | 20.0                  |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | FY 96   | A    | 31.8             | 11.9                  | 19.9                                      | 1.5              | 1.5        | 1.5             | 1.5          | 1.5          | 1.5          | 1.5   | 1.5  | 1.5 | 1.2 |                     | 0.2 | 1.5              | 1.5 | 1.5 | 0.5 |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | FY 96   | FMS  | 3.1              |                       | 3.1                                       |                  |            |                 |              |              |              |       |  |     | 0.3 | 1.5                 | 1.3 |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       | 1                                | FY 97   | A    | 10.3             |                       | 10.3                                      |                  |            |                 |              |              |              |       |  |     |     |                     |     | 1.0              | 1.5 | 1.5 | 1.5 | 1.5 | 1.5  | 0.3  |     |     |     |     |     |           |
|                                       | 1                                | FY 97   | A    | 1.5              |                       | 1.5                                       |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     | 1.2 | 0.3  |      |     |     |     |     |     |           |
|                                       | 1                                | FY 97   | A    | 3.7              |                       | 3.7                                       |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     | 1.1 | 2.6  |      |     |     |     |     |     |           |
|                                       | 1                                | FY 97   | FMS  | 1.2              |                       | 1.2                                       |                  | 0.9        |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     | 0.3  |      |     |     |     |     |     |           |
|                                       | 1                                | FY 98   | A    | 11.3             |                       | 11.3                                      |                  |            | A               |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     | 11.3 |      |     |     |     |     |     |           |
|                                       | 1                                | FY 99   | A    | 16.1             |                       | 16.1                                      |                  |            |                 |              |              |              |       |  |     |     |                     | A   |                  |     |     |     |     | 16.1 |      |     |     |     |     |     |           |
| <b>Total</b>                          |                                  |         |      | <b>680.9</b>     | <b>613.8</b>          | <b>67.1</b>                               | 1.5              | 2.4        | 1.5             | 1.5          | 1.5          | 1.5          | 1.5   | 1.5  | 1.5 | 1.5 | 1.5                 | 1.5 | 1.5              | 1.5 | 1.5 | 1.5 | 1.5 | 1.4  | 30.3 |     |     |     |     |     |           |
|                                       |                                  |         |      |                  |                       |   |                  |            |                 |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
| MFR                                   | NAME / LOCATION                  |         |      | PRODUCTION RATES |                       |   | REACHED          | MFR Number | ADMIN LEAD TIME |              |              | MFR          | TOTAL | REMARKS<br>The break in production between Sep 96 and Dec 96 is due to a change in acquisition strategy from single year to multi-year procurement. Funded delivery schedules and MFR leadtimes extended to maintain continuity in production rates. |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       |                                  |         |      | MIN.             | 1-8-5                 | MAX.                                      | D +              |            | Prior 1 Oct.    | After 1 Oct. | After 1 Oct. | After 1 Oct. |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
| 1                                     | FN Mfg Co. Inc., Columbia, SC    |         |      | 1.0              | 8.0                   | 17.0                                      | 18               | 1          | INITIAL         |              |              |              | 16    |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       |                                  |         |      |                  |                       |   |                  |            | REORDER         |              |              |              | 28    |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
| 2                                     | Colt's Mfg Co. Inc. Hartford, CT |         |      | 1.0              | 4.0                   | 10.0                                      | 18               |            | INITIAL         |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       |                                  |         |      |                  |                       |   |                  |            | REORDER         |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       |                                  |         |      |                  |                       |   |                  |            | INITIAL         |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |
|                                       |                                  |         |      |                  |                       |   |                  |            | REORDER         |              |              |              |       |  |     |     |                     |     |                  |     |     |     |     |      |      |     |     |     |     |     |           |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: 5.56 CARBINE M4 (G14904)

Program Elements for Code B Items: Code: A Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 41582       | 15892   | 9785    | 10603   | 7484    | 6310    | 8687    | 8309    |         |         |             | 108652     |
| Gross Cost       | 20.9        | 10.8    | 6.3     | 6.5     | 5.0     | 4.2     | 5.4     | 5.3     | 0.0     | 0.0     | 0.0         | 64.4       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 20.9        | 10.8    | 6.3     | 6.5     | 5.0     | 4.2     | 5.4     | 5.3     | 0.0     | 0.0     | 0.0         | 64.4       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 20.9        | 10.8    | 6.3     | 6.5     | 5.0     | 4.2     | 5.4     | 5.3     | 0.0     | 0.0     | 0.0         | 64.4       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The M4 Carbine is a 5.56mm gas-operated, air-cooled, magazine-fed, selective-rate, shoulder-fired weapon. It is fed by a 30-round magazine and will replace all M3A1 WWII era .45 cal Submachine guns, and selective M16 series rifles and M9 pistols. It provides the individual soldier operating in close quarters the capability to engage targets at extended ranges with accurate lethal fire. Although more compact and featuring a collapsible stock, it achieves over 85% commonality with the M16A2 rifle. The effective range is 500 meters.

**JUSTIFICATION:** The M4 Carbine will provide soldiers with a compact, light-weight weapon that can provide better self protection and additional firepower in close quarters. The FY99 program will allow for the uninterrupted fielding of the M4 Carbine to Army units. Procurement is necessary to achieve the Army Acquisition Objective (AAO) for the M4 Carbine.

| Exhibit P-5, Weapon<br>WTCV Cost Analysis                               |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 2 / Weapons and Other Combat |             |                   | P-1 Line Item Nomenclature:<br>5.56 CARBINE M4 (G14904) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|---|-------------|-------------------|---|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| WTCV<br>Cost Elements   | ID<br>CD | FY 96   |             |                   | FY 97   |             |                   | FY 98               |             |                   | FY 99                  |             |                   |
|   |          | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000                                      | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| 1. Hardware<br>M4 Carbine w/Sling Magazine & Blank Firing<br>Attachment | A        | 5161  | 9785        | 1                 | 5524  | 10603       | 1                 | 3899                | 7484        | 1                 | 3288                   | 6310        | 1                 |
| 2. Engineering Support<br>- In House Support                            |          | 400   |             |                   | 362   |             |                   | 425                 |             |                   | 443                    |             |                   |
| 3. Engineering Change Proposals (ECP's)                                 |          | 59  |             |                   | 48  |             |                   | 105                 |             |                   | 85                     |             |                   |
| 4. Quality Assurance (ARDEC)  |          | 75  |             |                   | 75  |             |                   | 75                  |             |                   | 75                     |             |                   |
| 5. ILS  |          | 65  |             |                   |   |             |                   | 65                  |             |                   | 65                     |             |                   |
| 6. Engineering Studies  |          | 220   |             |                   |   |             |                   |                     |             |                   |                        |             |                   |
| 7. Comparison Test (TECOM)  |          |   |             |                   | 175   |             |                   | 151                 |             |                   |                        |             |                   |
| 8. Fielding   |          | 312   |             |                   | 339   |             |                   | 264                 |             |                   | 274                    |             |                   |
| <b>TOTAL</b>  |          | <b>6292</b>   |             |                   | <b>6523</b>   |             |                   | <b>4984</b>         |             |                   | <b>4230</b>            |             |                   |

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
February 1998

Appropriation / Budget Activity/Serial No:  
PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and  
Other Combat Vehicles

Weapon System Type:

P-1 Line Item Nomenclature:  
5.56 CARBINE M4 (G14904)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location           | Contract Method and Type  | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-----------------------------------|---------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. Hardware<br>FY 96               | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP<br>M-4(1)          | ACALA           | Oct-97     | Jun-98                 | 6000     | 1               | Yes              | No               |                |
|                                    | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP                    | ACALA           | Mar-98     | Oct-98                 | 3785     | 1               | Yes              | No               |                |
| FY 97                              | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP                    | ACALA           | Mar-98     | Apr-99                 | 10603    | 1               | Yes              | No               |                |
| FY 98                              | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP<br>M-4(2)          | ACALA           | Jan-98     | Jun-99                 | 6000     | 1               | Yes              | No               |                |
|                                    | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP                    | ACALA           | Mar-98     | Oct-00                 | 1484     | 1               | Yes              | No               |                |
| FY 99                              | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP<br>M-4(3)          | ACALA           | Jan-99     | Jun-00                 | 6000     | 1               | Yes              | No               |                |
|                                    | Colt's Mfg Co., Inc. Hartford, CT | Option/<br>FY98<br>SS/FFP | ACALA           | Jan-99     | Dec-00                 | 310      | 1               | Yes              | No               |                |

REMARKS:







| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       | P-1 Item Nomenclature: 5.56 CARBINE M4 (G14904) |                  |     |     |     |     |     |     |     |     |     |     | Date: February 1998 |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|--|--|-----|--|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT                             | Fiscal Year 00   |     |     |     |     |     |     |     |     |     |     |                     | Fiscal Year 01   |     |     |     |     |     |     |     |     |     | L A T E R |     |     |  |  |     |  |
|                                       |     |       |      |               |                       |   | Calendar Year 00 |     |     |     |     |     |     |     |     |     |     |                     | Calendar Year 01 |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       |     |       |      |               |                       |   | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP                 | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL |           | AUG | SEP |  |  |     |  |
| Hardware                              | 1   | 95&Pr | A    | 57.5          | 57.5                  |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | 95&Pr | N    | 0.9           | 0.9                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | 95&Pr | SDAF | 0.5           | 0.5                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | 95&Pr | FMS  | 0.2           | 0.2                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY96  | A    | 6.0           | 6.0                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY96  | N    | 1.8           | 1.8                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY96  | OTH  | 1.5           | 1.5                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY96  | OTH  | 1.0           | 1.0                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY 96 | A    | 3.8           | 3.8                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY97  | A    | 10.6          | 3.4                   | 7.2   | 0.6              | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY97  | N    | 1.8           | 1.8                   |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY98  | A    | 6.0           | 2.0                   | 4.0   | 0.5              | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY 98 | A    | 1.5           |                       | 1.5   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     | 0.6 | 0.6 | 0.3 |     |     |           |     |     |  |  |     |  |
|                                       | 1   | FY 99 | A    | 6.0           |                       | 6.0   |                  |     |     |     |     |     |     | 0.5 | 0.5 | 0.5 | 0.5 | 0.5                 | 0.5              | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5       | 0.5 | 0.5 |  |  |     |  |
|                                       | 1   | FY 99 | A    | 0.3           |                       | 0.3   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     | 0.3 |     |     |     |     |     |           |     |     |  |  |     |  |
| Total                                 |     |       |      | 99.4          | 80.4                  | 19.0  | 1.1              | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1                 | 1.1              | 1.1 | 1.1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |     |     |           |     |     |  |  | 0.0 |  |

| MFR | NAME / LOCATION                   | PRODUCTION RATES |       |      | REACHED D + | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS   |    |    |
|-----|-----------------------------------|------------------|-------|------|-------------|------------|-----------------|--------------|------------------|--------------------|---|----|----|
|     |                                   | MIN.             | 1-8-5 | MAX. |             |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |   |    |    |
| 1   | Colt's Mfg. Co. Inc., Hartford CT | 0.5              | 2.0   | 8.0  | 18          | 1          |                 |              |                  |                    | To retain Colt in the Small Arms Industrial Base, a multiyear contract was awarded in Oct 97 providing a minimum sustaining rate of 500 weapons/month. Balance of annual requirements will also be awarded to Colt based on a recent legal decision. Initial leadtimes will not be met due to termination of FY96 contract. Funded delivery period and MFR leadtimes extended to maintain continuity in production rates. |    |    |
|     |                                   |                  |       |      |             | INITIAL    |                 |              | 7                | 24                 |   | 9  | 33 |
|     |                                   |                  |       |      |             | REORDER    |                 |              | 7                | 17                 |   | 14 | 31 |
|     |                                   |                  |       |      |             | INITIAL    |                 |              |                  |                    |   |    |    |
|     |                                   |                  |       |      |             | REORDER    |                 |              |                  |                    |   |    |    |
|     |                                   |                  |       |      |             | INITIAL    |                 |              |                  |                    |   |    |    |
|     |                                   |                  |       |      |             | REORDER    |                 |              |                  |                    |   |    |    |
|     |                                   |                  |       |      |             | INITIAL    |                 |              |                  |                    |   |    |    |
|     |                                   |                  |       |      |             | REORDER    |                 |              |                  |                    |   |    |    |

**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
 P-1 Item Nomenclature: MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV (GC0925))

Program Elements for Code B Items: Code: Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 68.3        | 2.6     | 1.4     | 0.6     | 1.4     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0         | 80.1       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 68.3        | 2.6     | 1.4     | 0.6     | 1.4     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0         | 80.1       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 68.3        | 2.6     | 1.4     | 0.6     | 1.4     | 1.1     | 1.0     | 1.0     | 1.3     | 1.3     | 0.0         | 80.1       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: Provides for modification of Weapons and Other Combat Vehicles with a cost less than \$2.0 Million.

JUSTIFICATION: Funds identified in FY97/FY98 will modify the M198 Howitzer and provide machine gun optic sights for the M249, M60 and M240B Machine Guns. The M198 Howitzer will improve the reliability, availability and maintainability (RAM), handling, equilibrators, durability of parts, a reduction in operator fatigue and increased users' satisfaction. The M198 will have the latest enhancements available to service the currently envisioned battlefield. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system.

### Exhibit P-40M Budget Item Justification Sheet

Date  
February 1998

Appropriation / Budget Activity/Serial No. PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles  
P-1 Item Nomenclature MODIFICATIONS LESS THAN \$2.0M (WOCV-WTCV) (GC0925)

Program Elements for Code B Items Code Other Related Program Elements

Description Fiscal Years  
OSIP NO. Classification FY 1996 FY 1997 FY 1998 FY 1999 FY 2000 FY 2001 FY 2002 FY 2003 TC Total

|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|----------------------------------|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| M198 Howitzer System Improvement |             |      |     |     |     |     |     |     |     |     |     |      |
| TBD1                             | Operational | 13.8 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.5 |
| Machine Gun Optics               |             |      |     |     |     |     |     |     |     |     |     |      |
| TBD2                             | Operational | 0.0  | 0.0 | 1.3 | 1.1 | 1.0 | 1.0 | 1.3 | 1.3 | 0.0 | 0.0 | 7.1  |
| Totals                           |             | 13.8 | 0.6 | 1.3 | 1.1 | 1.0 | 1.0 | 1.3 | 1.3 | 0.0 | 0.0 | 21.5 |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |
|                                  |             |      |     |     |     |     |     |     |     |     |     |      |

| INDIVIDUAL MODIFICATION   |  |         |    |    |    |                          |    |   |   | Date    |   | February 1998 |   |                      |              |   |   |          |   |        |   |     |
|---|--|---------|----|----|----|--------------------------|----|---|---|---------|---|---------------|---|----------------------|--------------|---|---|----------|---|--------|---|-----|
| MODIFICATION TITLE: M198 Howitzer System Improvement TBD1   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   |     |
| MODELS OF SYSTEMS AFFECTED: M198 Howitzer, Medium Towed   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   |     |
| DESCRIPTION / JUSTIFICATION:<br>The purpose of the Materiel Change (MC) is to improve the reliability of the M198 System, improve the brake system, reduce operator fatigue, improve the retention of hardware and improve equilibrator adjustment. The areas of improvement were a result of M198 fielded system review. Improvements in ram, handling maneuverability, durability of parts, a reduction in operator fatigue and increased users satisfaction is expected. |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   |     |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |         |    |    |    |                          |    |   |   | PLANNED |   |               |   |                      | ACCOMPLISHED |   |   |          |   |        |   |     |
|   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      | 1Q91         |   |   |          |   |        |   |     |
|   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      | 3Q91         |   |   |          |   |        |   |     |
|   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      | 3Q91         |   |   |          |   |        |   |     |
|   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      | 3Q91         |   |   |          |   |        |   |     |
|   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      | 1Q98         |   |   |          |   |        |   |     |
|   |  |         |    |    |    |                          |    |   |   | 4Q98    |   |               |   |                      |              |   |   |          |   |        |   |     |
| Installation Schedule:  |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   |     |
| Pr Yr   |  | FY 1997 |    |    |    | FY 1998                  |    |   |   | FY 1999 |   |               |   | FY 2000              |              |   |   | FY 2001  |   |        |   |     |
| Totals  |  | 1       | 2  | 3  | 4  | 1                        | 2  | 3 | 4 | 1       | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | 1        | 2 | 3      | 4 |     |
| <b>Inputs</b>   |  | 673     | 17 | 17 | 18 | 14                       |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   |     |
| <b>Outputs</b>  |  | 673     | 4  | 10 | 17 | 18                       | 17 |   |   |         |   |               |   |                      |              |   |   |          |   |        |   |     |
|   |  | FY 2002 |    |    |    | FY 2003                  |    |   |   | FY 2004 |   |               |   | FY 2005              |              |   |   | To       |   | Totals |   |     |
|   |  | 1       | 2  | 3  | 4  | 1                        | 2  | 3 | 4 | 1       | 2 | 3             | 4 | 1                    | 2            | 3 | 4 | Complete |   |        |   |     |
| <b>Inputs</b>   |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   | 739 |
| <b>Outputs</b>  |  |         |    |    |    |                          |    |   |   |         |   |               |   |                      |              |   |   |          |   |        |   | 739 |
| METHOD OF IMPLEMENTATION:   |  | Depot   |    |    |    | ADMINISTRATIVE LEADTIME: |    |   |   | Months  |   |               |   | PRODUCTION LEADTIME: |              |   |   | Months   |   |        |   |     |
| Contract Dates:   |  | FY 1997 |    |    |    | FY 1998                  |    |   |   | FY 1999 |   |               |   | FY 1999              |              |   |   |          |   |        |   |     |
| Delivery Date:  |  | FY 1997 |    |    |    | FY 1998                  |    |   |   | FY 1999 |   |               |   | FY 1999              |              |   |   |          |   |        |   |     |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): M198 Howitzer System Improvement TBD1

FINANCIAL PLAN: (\$ in Millions)

|   | FY 1996 and Prior |       | FY 1997 |       | FY 1998 |    | FY 1999 |    | FY 2000 |    | FY 2001 |    | FY 2002 |    | FY 2003 |    | TC  |    | TOTAL |     |       |
|---|-------------------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-------|
|   | Qty               | \$    | Qty     | \$    | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty     | \$ | Qty | \$ | Qty   | \$  |       |
| RDT&E                                     |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| PROCUREMENT                               |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Kit Quantity                              | 739               |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 739 |       |
| Installation Kits                         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Installation Kits, Nonrecurring Equipment |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Equipment, Nonrecurring                   |                   | 9.755 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 9.755 |
| Engineering Change Orders                 |                   | 1.616 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 1.616 |
| Data                                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Training Equipment                        |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Support Equipment                         |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Fielding                                  |                   | 0.071 |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 0.071 |
| Interim Contractor Support                |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Installation of Hardware                  |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 1996 & Prior Eqpt -- Kits              | 673               | 2.388 | 66      | 0.627 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 739 | 3.015 |
| FY 1997 Eqpt -- Kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 1998 Eqpt -- Kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 1999 Eqpt -- Kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2000 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2001 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2002 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| FY 2003 Eqpt -- kits                      |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| TC Equip-Kits                             |                   |       |         |       |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     |       |
| Total Installment                         | 673               | 2.388 | 66      | 0.627 |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       | 739 | 3.015 |
| Total Procurement Cos                     |                   | 13.8  |         | 0.6   |         |    |         |    |         |    |         |    |         |    |         |    |     |    |       |     | 14.5  |

| INDIVIDUAL MODIFICATION   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              | Date          |  |
|---|--|--|--|--|--|--|--|--|--|--|--|---------|--|--|--------------|---------------|--|
|   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              | February 1998 |  |
| MODIFICATION TITLE: Machine Gun Optics TBD2   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| MODELS OF SYSTEMS AFFECTED: M249 Squad Automatic Weapon; M60 Machine Guns, M240B Machine Guns   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| DESCRIPTION / JUSTIFICATION:<br>The Machine Gun Optic Program provides an optic (telescopic) sight for the 5.56mm M249 Light Machine Gun and 7.62mm Medium Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system. |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
|   |  |  |  |  |  |  |  |  |  |  |  | PLANNED |  |  | ACCOMPLISHED |               |  |
| Development/Operational Tests   |  |  |  |  |  |  |  |  |  |  |  | 3Q98    |  |  |              |               |  |
| Type Classification   |  |  |  |  |  |  |  |  |  |  |  | 4Q98    |  |  |              |               |  |
| Production Contract Award   |  |  |  |  |  |  |  |  |  |  |  | 4Q98    |  |  |              |               |  |
| First Production Hardware Delivered   |  |  |  |  |  |  |  |  |  |  |  | 1Q99    |  |  |              |               |  |
| First Unit Equipped   |  |  |  |  |  |  |  |  |  |  |  | 2Q99    |  |  |              |               |  |
| Installation Schedule:  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Pr Yr   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Totals  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Inputs  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Outputs   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Totals  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Inputs  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Outputs   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Totals  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Inputs  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Outputs   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Totals  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 10 Months   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Contract Dates: FY 1997 FY 1998 Aug 98 FY 1999 Jan 99   |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |
| Delivery Date: FY 1997 FY 1998 Nov 98 FY 1999 Oct 99  |  |  |  |  |  |  |  |  |  |  |  |         |  |  |              |               |  |

INDIVIDUAL MODIFICATION

Date February 1998

MODIFICATION TITLE (Cont): Machine Gun Optics TBD2

FINANCIAL PLAN: (\$ in Millions)

|                                 | FY 1996 and Prior |    | FY 1997 |    | FY 1998 |       | FY 1999 |       | FY 2000 |       | FY 2001 |       | FY 2002 |       | FY 2003 |       | TC  |    | TOTAL |       |     |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|-----|----|-------|-------|-----|
|                                 | Qty               | \$ | Qty     | \$ | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty     | \$    | Qty | \$ | Qty   | \$    |     |
| RDT&E                           |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| PROCUREMENT                     |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| Kit Quantity                    |                   |    |         |    | 1718    |       | 1378    |       | 1214    |       | 1191    |       | 1626    |       | 1625    |       |     |    |       | 8752  |     |
| Installation Kits               |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| Installation Kits, Nonrecurring |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| Equipment                       |                   |    |         |    |         | 1.117 | 0.896   | 0.789 | 0.774   | 1.057 | 1.056   |       |         |       |         |       |     |    |       | 5.689 |     |
| Equipment, Nonrecurring         |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| Engineering Support             |                   |    |         |    |         | 0.140 | 0.143   | 0.143 | 0.144   | 0.144 | 0.144   | 0.144 | 0.144   | 0.144 | 0.144   | 0.144 |     |    |       | 0.858 |     |
| Testing                         |                   |    |         |    |         | 0.050 | 0.050   | 0.050 | 0.050   | 0.050 | 0.050   | 0.050 | 0.050   | 0.050 | 0.050   | 0.050 |     |    |       | 0.300 |     |
| Integrated Logistical Support   |                   |    |         |    |         | 0.020 | 0.019   | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 |     |    |       | 0.119 |     |
| Fielding                        |                   |    |         |    |         | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 | 0.020   | 0.020 |     |    |       | 0.120 |     |
| Other                           |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| Interim Contractor Support      |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| Installation of Hardware        |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| FY 1996 & Prior Eqpt -- Kits    |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| FY 1997 Eqpt -- Kits            |                   |    |         |    |         |       |         |       |         |       |         |       |         |       |         |       |     |    |       |       |     |
| FY 1998 Eqpt -- Kits            |                   |    |         |    |         |       | 1350    |       | 368     |       |         |       |         |       |         |       |     |    |       | 1718  |     |
| FY 1999 Eqpt -- Kits            |                   |    |         |    |         |       |         |       | 1010    |       | 368     |       |         |       |         |       |     |    |       | 1378  |     |
| FY 2000 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       | 1214    |       |         |       |         |       |     |    |       | 1214  |     |
| FY 2001 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       | 218     |       |         |       |         |       |     |    |       | 1191  |     |
| FY 2002 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         | 973   |         |       |         |       |     |    |       | 1626  |     |
| FY 2003 Eqpt -- kits            |                   |    |         |    |         |       |         |       |         |       |         |       | 827     |       | 799     |       |     |    |       | 1625  |     |
| TC Equip-Kits                   |                   |    |         |    |         |       |         |       |         |       |         |       |         |       | 1001    |       | 624 |    |       | 1625  |     |
| Total Installment               |                   |    |         |    |         |       | 1350    |       | 1378    |       | 1800    |       | 1800    |       | 1800    |       | 624 |    |       | 8752  |     |
| Total Procurement Cos           |                   |    |         |    |         | 1.3   |         | 1.1   |         | 1.0   |         | 1.0   |         | 1.3   |         | 1.3   |     |    |       |       | 7.1 |



**Exhibit P-40, Budget Item Justification Sheet**

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles  
 P-1 Item Nomenclature: COMMAND & CONTROL VEHICLE (G84200)

Program Elements for Code B Items: Code: A Other Related Program Elements: PE 0604640A Advanced Command and Control Vehicle

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 5       | 5       | 10      | 22      | 22      | 22      | 37      | 316         | 439        |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 48.8    | 30.3    | 44.2    | 74.8    | 77.4    | 71.3    | 121.8   | 936.6       | 1405.2     |
| Less PY Adv Proc |             |         |         |         |         |         |         | 6.5     | 10.1    | 19.0    | 116.5       | 152.1      |
| Plus CY Adv Proc |             |         |         |         |         |         | 13.5    | 12.1    | 10.0    |         | 116.5       | 152.1      |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 48.8    | 30.3    | 44.2    | 88.3    | 83.0    | 71.2    | 102.8   | 936.6       | 1405.2     |
| Initial Spares   |             |         |         |         | 0.9     | 2.5     | 2.6     | 0.7     | 1.5     | 1.3     |             | 9.6        |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 48.8    | 31.2    | 46.7    | 90.9    | 83.7    | 72.7    | 104.1   | 936.6       | 1414.7     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         | 9.8     | 6.2     | 4.7     | 4.1     | 3.8     | 3.3     | 2.8     | 3.0         | 3.2        |

**DESCRIPTION:** The Command and Control Vehicle (C2V), provides a fully tracked, armored vehicle based on Bradley A2 and MLRS designs and components. It will ensure a mobile, responsive, and survivable command and control capability for the heavy force, and it provides the platform to support command and control on the move. C2V was developed in response to lessons learned during Operation Desert Storm. It supports the Army Digitization Effort, incorporating communications and electronic systems compatible with Army Tactical Command and Control systems (ATCCS).

**JUSTIFICATION:** This program was initiated as a result of deficiencies in existing command and control vehicles identified during Operation Desert Storm. FY99 is the 3rd year of low rate initial production.

A four year multi-year contract is planned for FY00 through FY03.

**Exhibit P-40C Budget Item Justification Sheet**

Date  
February 1998

|  |   |
|--|---|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | P-1 Item Nomenclature<br>COMMAND & CONTROL VEHICLE (G84200) |
|--|---|

|                                   |           |   |
|-----------------------------------|-----------|---|
| Program Elements for Code B Items | Code<br>A | Other Related Program Elements<br>PE 0604640A    Advanced Command and Control Vehicle |
|-----------------------------------|-----------|---|

| C2V Advanced Procurement Detail (in Mils): | Fiscal Year | 2000 | 2001 | 2002  | 2003  |
|--|-------------|------|------|-------|-------|
| FY2000 For FY2001 (memo)                   |             | 6.5  |      |       |       |
| FY2000 For FY2002 (memo)                   |             | 3.6  |      |       |       |
| FY2000 For FY2003 (memo)                   |             | 3.4  |      |       |       |
| FY2001 (memo)                              |             |      | -6.5 |       |       |
| FY2001 For FY2002 (memo)                   |             |      | 6.5  |       |       |
| FY2001 For FY2003 (memo)                   |             |      | 5.6  |       |       |
| FY2002 (memo)                              |             |      |      | -10.1 |       |
| FY2002 For FY2003                          |             |      |      | 10.0  |       |
| FY2003 (memo)                              |             |      |      |       | -19.0 |

| Exhibit P-5, Weapon<br>WTCV Cost Analysis          |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF WPNS & TRKD CMBT<br>VEHS / 1 / Tracked Combat Vehicles |           |      | P-1 Line Item Nomenclature:<br>COMMAND & CONTROL VEHICLE (G84200) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|--|--|--|-----------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV<br>Cost Elements                              |  | ID   | FY 96     |      |   | FY 97        |      |                     | FY 98        |      |                        | FY 99        |      |          |
|  |  | CD   | TotalCost | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|  |  |  | \$000     | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| 1. Vehicle   |  |  |           |      |   | 12394        | 5    | 2479                | 14331        | 5    | 2866                   | 23059        | 10   | 2306     |
| 2. Engine (included in LOT buy)                    |  |  |           |      |   |              |      |                     |              |      |                        |              |      |          |
| 3. Transmission                                    |  |  |           |      |   | 567          | 5    | 113                 | 739          | 5    | 148                    | 1487         | 10   | 149      |
| 4. Primary Power Unit                              |  |  |           |      |   |              |      |                     |              |      |                        | 1834         | 10   | 183      |
| 5. Environmental Control Unit                      |  |  |           |      |   |              |      |                     |              |      |                        | 406          | 10   | 41       |
| 6. Bio Chem Unit                                   |  |  |           |      |   |              |      |                     |              |      |                        | 1139         | 10   | 114      |
| 7. Other GFE                                       |  |  |           |      |   | 192          | 5    | 38                  | 191          | 5    | 38                     | 1256         | 10   | 126      |
| 8. Mission Module Components                       |  |  |           |      |   | 1273         | 5    | 255                 | 1157         | 5    | 231                    | 1908         | 10   | 191      |
| 9. Veh Inter/Intra Communication System<br>(VIICS) |  |  |           |      |   | 279          | 5    | 56                  | 255          | 5    | 51                     | 470          | 10   | 47       |
| <b>SUBTOTAL</b>                                    |  |  |           |      |   | <b>14705</b> |      |                     | <b>16673</b> |      |                        | <b>31559</b> |      |          |
| 10. Tooling  |  |  |           |      |   |              |      |                     |              |      |                        |              |      |          |
| 11. FAT/Qual of Vendors                            |  |  |           |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>SUBTOTAL</b>                                    |  |  |           |      |   |              |      |                     |              |      |                        |              |      |          |
| 12. Test   |  |  |           |      |   |              |      |                     | 666          |      |                        | 935          |      |          |
| 13. Engineering - Government                       |  |  |           |      |   | 1292         |      |                     | 2725         |      |                        | 2785         |      |          |
| 14. Engineering - Contractor                       |  |  |           |      |   | 8353         |      |                     | 7033         |      |                        | 6896         |      |          |
| 15. Project Management Administration              |  |  |           |      |   | 300          |      |                     | 469          |      |                        | 474          |      |          |
| 16. Reimbursable Matrix Support                    |  |  |           |      |   | 170          |      |                     | 453          |      |                        | 503          |      |          |
| 17. Software Support                               |  |  |           |      |   |              |      |                     | 522          |      |                        | 282          |      |          |
| 18. Logistics                                      |  |  |           |      |   | 1996         |      |                     | 1721         |      |                        | 807          |      |          |
| 19. Cummins Engine Life-of-Type (LOT) Buy          |  |  |           |      |   | 21950        | 439  | 50                  |              |      |                        |              |      |          |
| <b>TOTAL</b>                                       |  |  |           |      |   | <b>48766</b> |      |                     | <b>30262</b> |      |                        | <b>44241</b> |      |          |

**Exhibit P-5a, Budget Procurement History and Planning**

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked**  
 Weapon System Type: **Combat Vehicles**  
 P-1 Line Item Nomenclature: **COMMAND & CONTROL VEHICLE (G84200)**

| WBS Cost Elements:<br>Fiscal Years                     | Contractor and Location  | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--|--------------------------|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| <b>1. Vehicle</b>                                      |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97  | UDLP, York, PA.          | SS/FFP                   | TACOM           | Dec-96     | Apr-98                 | 5        | 2479            |                  | No               |                |
| FY 98  | UDLP, York, PA.          | SS/FFP                   | TACOM           | Dec-97     | Apr-99                 | 5        | 2866            |                  | No               |                |
| FY 99  | UDLP, York, PA.          | SS/FFP                   | TACOM           | Dec-98     | Apr-00                 | 10       | 2306            |                  | No               |                |
| <b>3. Transmission</b>                                 |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97  | GDLS, Muskegon, MI.      | SS/FFP                   | TACOM           | Mar-97     | Apr-98                 | 5        | 113             |                  | No               |                |
| FY 98  | GDLS, Muskegon, MI.      | SS/FFP                   | TACOM           | Mar-98     | Apr-99                 | 5        | 148             |                  | No               |                |
| FY 99  | GDLS, Muskegon, MI.      | SS/FFP                   | TACOM           | Mar-99     | Apr-00                 | 10       | 149             |                  | No               |                |
| <b>4. Primary Power Unit</b>                           |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 99  | TBD                      | TBD                      | TACOM           | Dec-98     | Apr-00                 | 10       | 183             |                  | No               |                |
| <b>5. Environmental Control Unit</b>                   |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 99  | TBD                      | TBD                      | TACOM           | Dec-98     | Apr-00                 | 10       | 41              |                  | No               |                |
| <b>6. Bio Chem Unit</b>                                |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 99  | TBD                      | TBD                      | TACOM           | Dec-98     | Apr-00                 | 10       | 114             |                  | No               |                |
| <b>8. Mission Module Components</b>                    |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97  | L3 Comm. Sys, Camden,NJ  | FP-Op                    | CECOM           | Feb-97     | Apr-98                 | 5        | 255             |                  | No               |                |
| FY 98  | L3 Comm. Sys, Camden,NJ  | FP-Op                    | CECOM           | Dec-97     | Apr-99                 | 5        | 231             |                  | No               |                |
| FY 99  | L3 Comm. Sys, Camden,NJ  | FP-Op                    | CECOM           | Dec-98     | Apr-00                 | 10       | 191             |                  | No               |                |
| <b>9. Veh Inter/Intra Communication System (VIICS)</b> |                          |                          |                 |            |                        |          |                 |                  |                  |                |
| FY 97  | L3 Comm. Sys, Camden, NJ | FP                       | CECOM           | Feb-97     | Apr-98                 | 5        | 56              |                  | No               |                |
| FY 98  | L3 Comm. Sys, Camden, NJ | FP                       | CECOM           | Dec-97     | Apr-99                 | 5        | 51              |                  | No               |                |
| FY 99  | L3 Comm. Sys, Camden, NJ | FP                       | CECOM           | Dec-98     | Apr-00                 | 10       | 47              |                  | No               |                |

**REMARKS:** L3 Comm. Sys, Camden, NJ - L3 Communications Systems, Camden, NJ  
 FY98: High Vehicle and Transmission cost reflects reduced business base.  
 FY99: Breakout of Primary Power Unit, Environmental control Unit, and Bio Chem Unit.







| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |                  |       |      |               |                       |                     | P-1 Item Nomenclature: COMMAND & CONTROL VEHICLE (G84200) |     |                  |                    |         |     |     |     |     |     |     |     |                  |     | Date: February 1998 |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|------------------|-------|------|---------------|-----------------------|---------------------|---|-----|------------------|--------------------|---------|-----|-----|-----|-----|-----|-----|-----|------------------|-----|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR              | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 03  |     |                  |                    |         |     |     |     |     |     |     |     | Fiscal Year 04   |     |                     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |                  |       |      |               |                       |                     | Calendar Year 03  |     |                  |                    |         |     |     |     |     |     |     |     | Calendar Year 04 |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | OCT   | NOV | DEC              | JAN                | FEB     | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| 1. Vehicle                            |                  |       |      |               |                       |                     |   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                | FY 97 | A    | 5             | 5                     |                     |   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                | FY 98 | A    | 5             | 5                     |                     |   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                | FY 99 | A    | 10            | 10                    |                     |   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                | FY00  | A    | 22            | 22                    |                     |   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                | FY01  | A    | 22            | 10                    | 12                  | 2   | 2   | 2                |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1                | FY02  | A    | 22            | 0                     | 22                  |   |     |                  |                    |         |     | 1   | 1   | 2   | 2   | 2   | 2   | 2                | 2   | 2                   | 2   | 2   | 2   | 2   |     |     |     |     |     |           |
|                                       | 1                | FY03  | A    | 37            | 0                     | 37                  |   |     | A                |                    |         |     |     |     |     |     |     |     |                  |     |                     |     | 3   | 3   | 3   | 19  |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | OCT   | NOV | DEC              | JAN                | FEB     | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| MFR                                   | PRODUCTION RATES |       |      |               | REACHED D +           | MFR Number          | ADMIN LEAD TIME   |     | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       | MIN.             | 1-8-5 | MAX. | Prior 1 Oct.  |                       |                     | After 1 Oct.  |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
| 1                                     | UDLP, York, PA.  | TBD   | TBD  | TBD           |                       | 1                   | INITIAL   |     |                  |                    | 3       | 16  | 19  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | REORDER   |     |                  |                    | 3       | 16  | 19  |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | INITIAL   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | REORDER   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | INITIAL   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | REORDER   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | INITIAL   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |
|                                       |                  |       |      |               |                       |                     | REORDER   |     |                  |                    |         |     |     |     |     |     |     |     |                  |     |                     |     |     |     |     |     |     |     |     |     |           |



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |       |      |               |                       |                     | P-1 Item Nomenclature: COMMAND & CONTROL VEHICLE (G84200) |     |     |     |     |     |     |     |     |     |     |     |     |                  | Date: February 1998 |     |     |     |     |     |     |     |     |     |  |           |
|---------------------------------------|-----|-------|------|---------------|-----------------------|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----------|
| COST ELEMENTS                         | MFR | FY    | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 05  |     |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 06   |                     |     |     |     |     |     |     |     |     |     |  | L A T E R |
|                                       |     |       |      |               |                       |                     | Calendar Year 05  |     |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 06 |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     | OCT   | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV              | DEC                 | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |  |           |
| 1. Vehicle                            |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY 97 | A    | 5             | 5                     |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY 98 | A    | 5             | 5                     |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY 99 | A    | 10            | 10                    |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY00  | A    | 22            | 22                    |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY01  | A    | 22            | 22                    |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY02  | A    | 22            | 22                    |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       | 1   | FY03  | A    | 37            | 18                    | 19                  | 3   | 3   | 3   | 3   | 3   | 4   |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     | 0     | 0    | 123           | 104                   | 118                 | 3   | 3   | 3   | 3   | 3   | 4   |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |
|                                       |     |       |      |               |                       |                     |   |     |     |     |     |     |     |     |     |     |     |     |     |                  |                     |     |     |     |     |     |     |     |     |     |  |           |

  

| MFR | NAME / LOCATION | PRODUCTION RATES |       |      | REACHED D+ | MFR Number | ADMIN LEAD TIME |              | MFR After 1 Oct. | TOTAL After 1 Oct. | REMARKS |
|-----|-----------------|------------------|-------|------|------------|------------|-----------------|--------------|------------------|--------------------|---------|
|     |                 | MIN.             | 1-8-5 | MAX. |            |            | Prior 1 Oct.    | After 1 Oct. |                  |                    |         |
| 1   | UDLP, York, PA. | TBD              | TBD   | TBD  |            | 1          | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | INITIAL         |              |                  |                    |         |
|     |                 |                  |       |      |            |            | REORDER         |              |                  |                    |         |