

Index for WEAPONS AND TRACKED COMBAT VEHICLES

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Index for WEAPONS AND TRACKED COMBAT VEHICLES

| Blin | Nomenclature | SSN | Filename | Page Number |
|-------------|--|------------|-----------------|--------------------|
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| 29 | GRENADE LAUNCHER, AUTO, 40MM, MK19-3 | G13400 | 36106100.00P | 233 |
| 30 | M16 RIFLE | G14900 | 37528100.00P | 239 |
| 31 | XM107, CAL. 50 SNIPER RIFLE | G01500 | 38165117.00P | 245 |
| 32 | 5.56 CARBINE M4 | G14904 | 38198100.00P | 250 |
| 33 | MARK-19 MODIFICATIONS | GB3000 | 33000132.00P | 256 |
| 34 | M4 CARBINE MODS | GB3007 | 33010117.00P | 260 |
| 35 | SQUAD AUTOMATIC WEAPON (MOD) | GZ1290 | 33020117.00P | 270 |
| 36 | HOWITZER, TOWED, 155MM, M198 (MODS) | GA0430 | 33634100.00P | 276 |
| 37 | M119 MODIFICATIONS | GC0401 | 33640100.00P | 282 |
| 38 | M16 RIFLE MODS | GZ2800 | 36456117.00P | 288 |
| 39 | MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV (GC0925) | GC0925 | 39280117.00P | 294 |
| 40 | ITEMS LESS THAN \$5.0M (WOCV-WTCV) | GL3200 | 31862100.00P | 298 |
| 41 | PRODUCTION BASE SUPPORT (WOCV-WTCV) | GC0050 | 33270144.00P | 300 |
| 42 | INDUSTRIAL PREPAREDNESS | GC0075 | 33400144.00P | 302 |
| 43 | SMALL ARMS (SOLDIER ENH PROG) | GC0076 | 34010117.00P | 303 |
| 45 | SPARES AND REPAIR PARTS (WTCV) | GE0150 | 34540107.00P | 306 |

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****WEAPONS & TRACKED COMBAT VEHICLES****

Activity: 1. ****TRACKED COMBAT VEHICLES****

| LINE NO. | ITEM NOMENCLATURE | ID | (DOLS) FY 00 UNIT COST | (THOUSANDS OF DOLLARS) | | | | | | | | |
|----------|--|-----|---------------------------------|------------------------|----------------|-------|----------------|-------|----------------|-------|------|--------------------|
| | | | | FY 98 | | FY 99 | | FY 00 | | FY 01 | | |
| | | | | QTY | COST | QTY | COST | QTY | COST | QTY | COST | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| | **TRACKED COMBAT VEHICLES** | | | | | | | | | | | |
| 1 | ABRAMS TRNG DEV MOD (GA5208) | | | | 2,176 | | 8,514 | | 2,640 | | | 5,383 |
| 2 | BRADLEY BASE SUSTAINMENT (G80718) LESS: ADVANCE PROCUREMENT (PY) | B | | | 225,377 | | 363,156 | | 308,762 | | | 411,305 -11,430 |
| | | | | | ----- | | ----- | | ----- | | | ----- |
| | | | | | 225,377 | | 363,156 | | 308,762 | | | 399,875 |
| 3 | BRADLEY BASE SUSTAINMENT (G80718) ADVANCE PROCUREMENT (CY) | | | | | | | | 27,675 | | | 6,307 |
| 4 | BRADLEY FVS TRAINING DEVICES (G20900) | A | | | | | 12,695 | | 23,441 | | | 18,715 |
| 5 | BREACHER TRAINING DEVICES (G84000) | | | | | | | | | | | 375 |
| 6 | HAB TRAINING DEVICES (G84600) | | | | | | 385 | | 14,910 | | | 1,239 |
| 7 | BRADLEY FVS TRAINING DEVICES (MOD) (GZ2500) | A | | | | | 2,070 | | 4,334 | | | 4,674 |
| 8 | FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) | A | | 36 | 38,289 | | | | | | | |
| 9 | ABRAMS TANK TRAINING DEVICES (GB1300) | A | | | 13,076 | | 13,376 | | 8,086 | | | 10,606 |
| 10 | COMMAND & CONTROL VEHICLE (G84200) LESS: ADVANCE PROCUREMENT (PY) | B | 4,545,417 | 5 | 29,575 | 10 | 47,992 | 12 | 54,545 | 18 | | 76,223 -794 |
| | | | | | ----- | | ----- | | ----- | | | ----- |
| | | | | | 29,575 | | 47,992 | | 54,545 | | | 75,429 |
| 11 | COMMAND & CONTROL VEHICLE (G84200) ADVANCE PROCUREMENT (CY) | | | | | | | | 2,559 | | | 2,466 |
| | | | | | ----- | | ----- | | ----- | | | ----- |
| | SUB-ACTIVITY TOTAL | | | | 308,493 | | 448,188 | | 446,952 | | | 525,069 |

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****WEAPONS & TRACKED COMBAT VEHICLES****

Activity: 1. ****TRACKED COMBAT VEHICLES****

| LINE NO. | ITEM NOMENCLATURE | ID | (DOLS) FY 00 UNIT COST | (THOUSANDS OF DOLLARS) | | | | | | | | |
|----------|--|-----|---------------------------------|------------------------|---|-------|---|-------|---|-------|------|---|
| | | | | FY 98 | | FY 99 | | FY 00 | | FY 01 | | |
| | | | | QTY | COST | QTY | COST | QTY | COST | QTY | COST | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| | **MODIFICATION OF TRACKED COMBAT VEHICLES** | | | | | | | | | | | |
| 12 | CARRIER, MOD (GB1930) | A | | | 38,523 | | 54,314 | | 53,463 | | | 45,649 |
| 13 | FIST VEHICLE (MOD) (GZ2300) | | | | 15,237 | | 24,656 | | 27,338 | | | 31,103 |
| 14 | BFVS SERIES (MOD) (GZ2400) | A | | | 58,612 | | 75,303 | | 7,087 | | | 26,605 |
| 15 | HOWITZER, MED SP FT 155MM M109A6 (MOD) (GA0400) | A | | | 73,964 | | 11,310 | | 6,259 | | | 8,104 |
| 16 | FAASV PIP TO FLEET (GA8010) | A | | | 1,840 | | 3,149 | | 230 | | | 79 |
| 17 | IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) | A | | | 31,993 | | 50,943 | | | | | |
| 18 | BREACHER SYSTEM MOD (GZ3200) | | | | | | | | 19,680 | | | 79,395 |
| 19 | HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) | | | | 40,372 | | 50,271 | | 67,312 | | | 84,893 |
| 20 | ARMORED VEH LAUNCH BRIDGE (AVLB) (MOD) (GZ3000) | A | | | | | 966 | | 1,443 | | | 1,815 |
| 21 | M1 ABRAMS TANK (MOD) (GA0700) | A | | | 18,630 | | 36,207 | | 29,815 | | | 88,600 |
| 22 | ABRAMS UPGRADE PROGRAM (GA0750) LESS: ADVANCE PROCURMENT (PY) | A | | | 572,873 -258,171 ----- 314,702 | | 677,214 -257,118 ----- 420,096 | | 685,938 -262,942 ----- 422,996 | | | 536,282 -213,406 ----- 322,876 |
| 23 | ABRAMS UPGRADE PROGRAM (GA0750) ADVANCE PROCUREMENT (CY) | | | | 257,118 | | 262,942 | | 213,406 | | | 164,054 |

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****WEAPONS & TRACKED COMBAT VEHICLES****

Activity: 1. ****TRACKED COMBAT VEHICLES****

| LINE NO. | ITEM NOMENCLATURE | ID | (DOLS) FY 00 UNIT COST | (THOUSANDS OF DOLLARS) | | | | | | | | |
|----------|---|-----|---------------------------------|------------------------|------------------|-------|------------------|-------|------------------|-------|------------------|-------|
| | | | | FY 98 | | FY 99 | | FY 00 | | FY 01 | | |
| | | | | QTY | COST | QTY | COST | QTY | COST | QTY | COST | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| 24 | MODIFICATIONS LESS THAN \$5.0M (TCV-WTCV) (GA0925) | | | | 986 | | | | 192 | | | 165 |
| | SUB-ACTIVITY TOTAL | | | | ----- 851,977 | | ----- 990,157 | | ----- 849,221 | | ----- 853,338 | |
| | **SUPPORT EQUIPMENT AND FACILITIES** | | | | | | | | | | | |
| 25 | ITEMS LESS THAN \$5.0M (TCV-WTCV) (GL3100) | | | | 11 | | 132 | | 138 | | | 136 |
| 26 | PRODUCTION BASE SUPPORT (TCV-WTCV) (GA0050) | | | | 8,337 | | 8,838 | | 8,924 | | | 9,340 |
| | SUB-ACTIVITY TOTAL | | | | ----- 8,348 | | ----- 8,970 | | ----- 9,062 | | ----- 9,476 | |
| | ACTIVITY TOTAL | | | | 1,168,818 | | 1,447,315 | | 1,305,235 | | 1,387,883 | |

DEPARTMENT OF THE ARMY
FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
February 1999

Appropriation: ****WEAPONS & TRACKED COMBAT VEHICLES****

Activity: **2. **WEAPONS AND OTHER COMBAT VEHICLES****

| LINE NO. | ITEM NOMENCLATURE | ID | (DOLS) FY 00 UNIT COST | (THOUSANDS OF DOLLARS) | | | | | | | | |
|----------|--|-----|---------------------------------|------------------------|---------------|--------|---------------|--------|---------------|--------|---------------|--|
| | | | | FY 98 | | FY 99 | | FY 00 | | FY 01 | | |
| | | | | QTY | COST | QTY | COST | QTY | COST | QTY | COST | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| | **WEAPONS AND OTHER COMBAT VEHICLES** | | | | | | | | | | | |
| 27 | ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) | A | 9,359 | 1,500 | 14,358 | 1,198 | 11,466 | 1,304 | 12,204 | 1,196 | 12,570 | |
| 28 | MACHINE GUN, 5.56MM (SAW) (G12900) | A | | 406 | 3,131 | 1,525 | 4,482 | | | | | |
| 29 | GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400) | A | 16,857 | 400 | 7,657 | 697 | 15,152 | 1,085 | 18,290 | 581 | 11,950 | |
| 30 | M16 RIFLE (G14900) | A | 460 | 11,297 | 4,871 | 16,464 | 6,811 | 12,479 | 5,744 | 10,922 | 4,839 | |
| 31 | XM107, CAL. 50, SNIPER RIFLE (G01500) | | 13,388 | | | | | 85 | 1,138 | 233 | 3,115 | |
| 32 | 5.56 CARBINE M4 (G14904) | A | 611 | 7,484 | 4,445 | 6,310 | 4,219 | 8,687 | 5,309 | 8,309 | 5,241 | |
| | SUB-ACTIVITY TOTAL | | | | 34,462 | | 42,130 | | 42,685 | | 37,715 | |
| | **MODIFICATION OF WEAPONS AND OTHER COMBAT VEHICLES** | | | | | | | | | | | |
| 33 | MARK-19 MODIFICATIONS (GB3000) | | | | | | | | 1,980 | | 586 | |
| 34 | M4 CARBINE MODS (GB3007) | A | | | 6,964 | | 5,136 | | 5,315 | | 2,528 | |
| 35 | SQUAD AUTOMATIC WEAPON (MOD) (GZ1290) | | | | | | | | 8,326 | | 10,053 | |
| 36 | HOWITZER, TOWED, 155MM, M198 (MODS) (GA0430) | | | | | | | | 3,345 | | 3,541 | |
| 37 | M119 MODIFICATIONS (GC0401) | A | | | 4,764 | | 4,800 | | 4,784 | | 4,750 | |
| 38 | M16 RIFLE MODS (GZ2800) | A | | | 4,535 | | 5,227 | | 7,180 | | 9,685 | |
| 39 | MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV) (GC0925) | | | | 1,347 | | 1,125 | | 1,006 | | 795 | |
| | SUB-ACTIVITY TOTAL | | | | 17,610 | | 16,288 | | 31,936 | | 31,938 | |

DEPARTMENT OF THE ARMY
 FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
 February 1999

Appropriation: ****WEAPONS & TRACKED COMBAT VEHICLES****

Activity: **2. **WEAPONS AND OTHER COMBAT VEHICLES****

| LINE NO. | ITEM NOMENCLATURE | ID | (DOLS) FY 00 UNIT COST | (THOUSANDS OF DOLLARS) | | | | | | | | |
|----------|---|-----|---------------------------------|------------------------|---------------|-------|---------------|-------|---------------|-------|------|---------------|
| | | | | FY 98 | | FY 99 | | FY 00 | | FY 01 | | |
| | | | | QTY | COST | QTY | COST | QTY | COST | QTY | COST | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| | **SUPPORT EQUIPMENT AND FACILITIES** | | | | | | | | | | | |
| 40 | ITEMS LESS THAN \$5.0M (WOCV-WTCV) (GL3200) | | | | 1,285 | | 1,161 | | 1,206 | | | 1,193 |
| 41 | PRODUCTION BASE SUPPORT (WOCV-WTCV) (GC0050) | | | | 6,067 | | 5,127 | | 4,566 | | | 5,202 |
| 42 | INDUSTRIAL PREPAREDNESS (GC0075) | | | | 2,896 | | 3,949 | | 3,084 | | | 3,639 |
| 43 | SMALL ARMS (SOLDIER ENH PROG) (GC0076) | | | | 4,465 | | 5,219 | | 5,214 | | | 3,541 |
| 44 | CLOSED ACCOUNT ADJUSTMENTS (GC9500) | | | | 759 | | | | | | | |
| | SUB-ACTIVITY TOTAL | | | | 15,472 | | 15,456 | | 14,070 | | | 13,575 |
| | ACTIVITY TOTAL | | | | 67,544 | | 73,874 | | 88,691 | | | 83,228 |

DEPARTMENT OF THE ARMY
 FY 00/01 PROCUREMENT PROGRAM

EXHIBIT P-1
 February 1999

Appropriation: ****WEAPONS & TRACKED COMBAT VEHICLES****

Activity: **3. **SPARES AND REPAIR PARTS****

| LINE NO. | ITEM NOMENCLATURE | ID | (DOLS) FY 00 UNIT COST | (THOUSANDS OF DOLLARS) | | | | | | | | |
|----------|--|-----|---------------------------------|------------------------|------------------|-------|------------------|-------|------------------|-------|------------------|--|
| | | | | FY 98 | | FY 99 | | FY 00 | | FY 01 | | |
| | | | | QTY | COST | QTY | COST | QTY | COST | QTY | COST | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | |
| | **SPARES AND REPAIR PARTS** | | | | | | | | | | | |
| 45 | SPARES AND REPAIR PARTS (WTCV) (GE0150) | | | | 16,103 | | 23,151 | | 22,839 | | 28,651 | |
| | | | | | ----- | | ----- | | ----- | | ----- | |
| | SUB-ACTIVITY TOTAL | | | | 16,103 | | 23,151 | | 22,839 | | 28,651 | |
| | ACTIVITY TOTAL | | | | 16,103 | | 23,151 | | 22,839 | | 28,651 | |
| | APPROPRIATION TOTAL | | | | 1,252,465 | | 1,544,340 | | 1,416,765 | | 1,499,762 | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 18.2 | 3.2 | 2.2 | 8.5 | 2.6 | 5.4 | 5.6 | 5.6 | 5.9 | 3.4 | | 60.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 18.2 | 3.2 | 2.2 | 8.5 | 2.6 | 5.4 | 5.6 | 5.6 | 5.9 | 3.4 | | 60.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 18.2 | 3.2 | 2.2 | 8.5 | 2.6 | 5.4 | 5.6 | 5.6 | 5.9 | 3.4 | | 60.5 |
| 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: This program meets needs validated by the Abrams user community. Degradation of tank training will occur if these modifications are delayed or deleted. The Conduct of Fire Trainer (COFT) M60A3 to M1 Conversions are for the National Guard units. Annually, 3,016 tank gunner - commander combinations will use the modified COFT. 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 the National Guard.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

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

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|-------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |

| | | | | | | | | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Conduct of Fire Trainer (COFT) Image Generator (IG) and Computer Rehost/Applique | | | | | | | | | | | |
| 1-97-05-4526 | Operational | 5.0 | 4.1 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.0 | 13.9 |
| AGTS/SEP Mod | | | | | | | | | | | |
| 1-97-05-4527 | Operational | 0.0 | 0.0 | 0.0 | 0.6 | 2.4 | 2.4 | 3.5 | 2.0 | 0.0 | 10.9 |
| Tank Driver Trainer Mod (M1A2 SEP Upgrade) | | | | | | | | | | | |
| 1-97-05-4528 | Operational | 0.0 | 4.2 | 1.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 6.0 |
| Close Combat Tactical Trainer (CCTT)/SEP Mod | | | | | | | | | | | |
| 1-97-05-4529 | Operational | 0.0 | 0.0 | 0.2 | 0.7 | 2.2 | 1.7 | 1.4 | 0.4 | 0.0 | 6.6 |
| Maintenance Training System (MTS) SEP Mod | | | | | | | | | | | |
| 1-97-05-4530 | Operational | 0.0 | 0.2 | 0.3 | 3.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 | 4.6 |
| Totals | | 5.0 | 8.5 | 2.6 | 5.4 | 5.6 | 5.6 | 5.9 | 3.4 | 0.0 | 42.0 |

FY98 & prior does not include 18.6M for mods that have been completed.

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|--|----------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|-----|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 1 | 0.1 | 9 | 1.6 | 5 | 0.8 | 4 | 0.8 | 4 | 0.8 | 4 | 0.8 | 4 | 0.8 | 4 | 0.8 | | | 35 | 6.5 | |
| Installation Kits | | 4.9 | | 2.5 | | | | | | | | | | | | | | | | 7.4 | |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring Engineering Change Orders Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 5.0 | | 4.1 | | 0.8 | | 0.8 | | 0.8 | | 0.8 | | 0.8 | | 0.8 | | | | | 13.9 |

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|----|---------|----|---------|----|---------|----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|----|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | | | | | | | | | 2 | 1.2 | | 4 | 2.4 | 4 | 2.1 | 4 | 2.0 | | | 14 | 7.7 |
| Installation Kits, Nonrecurring | | | | | | | 0.6 | | | 1.2 | | | | | 1.4 | | | | | | 3.2 |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | | 0.6 | | 2.4 | | 2.4 | | 3.5 | | 2.0 | | | | | | 10.9 |

INDIVIDUAL MODIFICATION

Date February 1999

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

MODELS OF SYSTEMS AFFECTED: M1A1 Tank Driver Trainer

DESCRIPTION / JUSTIFICATION:

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 student enrollment as more M1A2s enter the field.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

Contractor Test and Evaluation: 3Q00

Initial Operational Test and Evaluation: 4Q00

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | 1 | | | | 1 | | | | | | | | | | | | | 1 | |
| Outputs | | | | | | | | 1 | | | | 1 | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 3 |
| Outputs | | | | 1 | | | | | | | | | | | | | | | | 3 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

Contract Dates: FY 1999 Jan 99 FY 2000 Jan 00 FY 2001

Delivery Date: FY 1999 Sep 00 FY 2000 Sep 01 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|----|---------|-----|---------|-----|---------|----|---------|----|---------|-----|---------|----|---------|----|-----|----|-------|-----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | 1 | 1.5 | 1 | 1.3 | | | | | 1 | 0.5 | | | | | | | 3 | 3.3 | |
| Installation Kits | | | | 2.7 | | | | | | | | | | | | | | | | | 2.7 |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | 4.2 | | 1.3 | | | | | | 0.5 | | | | | | | | | 6.0 |

INDIVIDUAL MODIFICATION

Date February 1999

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

MODELS OF SYSTEMS AFFECTED: Close Combat Tactical Trainer (CCTT)

DESCRIPTION / JUSTIFICATION:

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:

PLANNED

ACCOMPLISHED

Contractor Test and Evaluation:

3Q02

Initial Operational Test and Evaluation:

4Q02

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|----|---|---------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Totals | | | | | | | | | | | | | 18 | | | | 8 | | | | 8 |
| Inputs | | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | 18 | | | | | | 8 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|---|---|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | 12 | | | | 4 | | | | | | | | | | | | | | | | |
| Outputs | | | | 12 | | | | 4 | | | | | | | | | | | | | 42 |

METHOD OF IMPLEMENTATION: Contractor **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 15 Months
Contract Dates: FY 1999 FY 2000 Mar 00 FY 2001 Jan 01
Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | | |
|---|-------------------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|----|----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | | | | | | | | | 18 | 2.2 | | 8 | 1.7 | | 12 | 1.4 | | 4 | 0.4 | | 42 | 5.7 |
| Installation Kits, Nonrecurring Equipment | | | | | | 0.2 | | | 0.7 | | | | | | | | | | | | | 0.9 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | 0.2 | | 0.7 | | 2.2 | | 1.7 | | 1.4 | | 0.4 | | | | | | 6.6 |

INDIVIDUAL MODIFICATION

Date February 1999

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

MODELS OF SYSTEMS AFFECTED: M1A2 Maintenance Trainers

DESCRIPTION / JUSTIFICATION:

This funding will modify existing M1A2 Maintenance Training Systems to represent the most recent SEP changes to the M1A2.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

Contractor Test and Evaluation: 3Q01

Initial Operational Test and Evaluation: 4Q01

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | 2 | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | 2 | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 2 |
| Outputs | | | | | | | | | | | | | | | | | | | | 2 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

Contract Dates: FY 1999 Mar 99 FY 2000 Jan 00 FY 2001 Jan 01

Delivery Date: FY 1999 FY 2000 FY 2001 Sep 01

INDIVIDUAL MODIFICATION

Date February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|-----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | | | | | | | 2 | 3.3 | | | | | | | | | | | 2 | 3.3 | |
| Installation Kits, Nonrecurring | | | 0.2 | | | 0.3 | | | | 0.2 | | 0.2 | | 0.2 | | 0.2 | | | | | 1.3 |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | 0.2 | | | 0.3 | | 3.3 | | 0.2 | | 0.2 | | 0.2 | | 0.2 | | | | | 4.6 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 519 | 80 | 98 | 126 | 104 | 149 | 160 | 134 | 145 | 153 | 138 | 1806 |
| Gross Cost | 591.8 | 250.9 | 225.4 | 363.2 | 308.8 | 411.3 | 430.0 | 375.2 | 414.2 | 536.0 | 496.7 | 4403.3 |
| Less PY Adv Proc | | | | | | 11.4 | 12.3 | 10.3 | | 11.3 | 10.7 | 56.0 |
| Plus CY Adv Proc | | | | | 27.7 | 6.3 | | | 19.3 | 2.8 | | 56.0 |
| Net Proc (P-1) | 591.8 | 250.9 | 225.4 | 363.2 | 336.4 | 406.2 | 417.7 | 364.9 | 433.5 | 527.5 | 486.0 | 4403.3 |
| Initial Spares | 4.9 | 2.3 | 0.3 | 7.1 | 9.2 | 11.6 | 10.8 | 11.0 | 5.2 | 7.1 | 50.0 | 119.5 |
| Total Proc Cost | 596.7 | 253.2 | 225.7 | 370.3 | 345.6 | 417.8 | 428.5 | 375.9 | 438.7 | 534.5 | 535.9 | 4522.8 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | 1.1 | 3.2 | 2.3 | 2.9 | 3.3 | 2.8 | 2.7 | 2.8 | 3.0 | 3.5 | 3.9 | 2.5 |

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. FY97-99 provided the first three years of A3 LRIP vehicles. FY00 marks the first full rate 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 FY00 Budget will provide the first year of full rate for the A3 upgrade program. The A3 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 1999

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 | 2004 | 2005 | 2006 |
|---|-------------|--------|----------|----------|----------|--------|----------|----------|
| FY TOA | | | | | | | | |
| FY2000 for FY2001 (memo) | | 11.430 | | | | | | |
| FY2000 for FY2002 (memo) | | 8.845 | | | | | | |
| FY2000 for FY2003 (memo) | | 7.400 | | | | | | |
| FY2001 (memo) | | | (11.430) | | | | | |
| FY2001 for FY2002 (memo) | | | 3.428 | | | | | |
| FY2001 for FY2003 (memo) | | | 2.879 | | | | | |
| FY2002 (memo) | | | | (12.273) | | | | |
| FY2002 for FY2003 (memo) | | | | | | | | |
| FY2003 (memo) | | | | | (10.279) | | | |
| FY2004 for FY2005 (memo) | | | | | | 11.304 | | |
| FY2004 for FY2006 (memo) | | | | | | 7.976 | | |
| FY2005 (memo) | | | | | | | (11.304) | |
| FY2005 for FY2006 (memo) | | | | | | | 2.765 | |
| FY2006 (memo) | | | | | | | | (10.741) |

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (G80718) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|---------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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/) | | | 112654 | | | 93666 | | | 3204 | | | 6185 | | |
| BRADLEY BASE SUSTAINMENT (M2A3) | | | 112723 | | | 269490 | | | 333233 | | | 399997 | | |
| TOTAL | | | 225377 | | | 363156 | | | 336437 | | | 406182 | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 519 | 45 | 80 | 53 | | | | | | | | 697 |
| Gross Cost | 591.8 | 75.0 | 112.7 | 93.7 | 3.2 | 6.2 | 0.0 | 0.0 | 26.5 | 120.6 | 0.0 | 1029.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 591.8 | 75.0 | 112.7 | 93.7 | 3.2 | 6.2 | 0.0 | 0.0 | 26.5 | 120.6 | | 1029.5 |
| Initial Spares | 4.9 | 2.3 | | | | | | | | | | 7.2 |
| Total Proc Cost | 596.7 | 77.3 | 112.7 | 93.7 | 3.2 | 6.2 | 0.0 | 0.0 | 26.5 | 120.6 | 0.0 | 1036.7 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | 1.1 | 1.7 | 1.4 | 1.8 | | | | | | | | |

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 and 53 A0-A2ODS's in FY 98 and 99 respectively.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A2) (G80716) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|---------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | | 50000 | 80 | 625 | 33405 | 53 | 630 | | | | | | |
| 2. T2SS | | | 8179 | 80 | 102 | 5950 | 53 | 112 | | | | | | |
| 3. Other GFE (New) | | | 11719 | 80 | 146 | 11850 | 53 | 224 | | | | | | |
| 4. Other GFE (Reman) | | | 12919 | 80 | 161 | 8385 | 53 | 158 | | | | | | |
| 5. Contractor Engineering | | | 2750 | | | 2710 | | | | | | | | |
| 6. National Guard Fielding | | | 5750 | | | 7376 | | | | | | | | |
| SUBTOTAL | | | 91317 | | | 69676 | | | | | | | | |
| 7. Linebacker Engineering - Contractor | | | 3686 | | | 4560 | | | | | | | | |
| 8. Linebacker Engineering - Government | | | 914 | | | 1650 | | | | | | | | |
| SUBTOTAL | | | 4600 | | | 6210 | | | | | | | | |
| 9. PSE | | | 14397 | | | 7920 | | | | | | | | |
| 10. BFVS Fielding | | | 2340 | | | 9860 | | | 3204 | | | 6185 | | |
| TOTAL | | | 112654 | | | 93666 | | | 3204 | | | 6185 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: 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 98 | UDLP, York PA | SS/FFP | TACOM | Jun-98 | Sep-99 | 80 | 625 | Yes | No | |
| FY 99 | UDLP, York PA | SS/FFP | TACOM | May-99 | Dec-01 | 53 | 630 | Yes | No | |
| 2. T2SS | | | | | | | | | | |
| FY 98 | Raytheon System, CA | SS/FFP | AMCOM | Aug-98 | Jun-99 | 80 | 102 | Yes | No | |
| FY 99 | Raytheon System, CA | SS/FFP | AMCOM | Mar-99 | Sep-01 | 53 | 112 | Yes | No | |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: Code: Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | 35 | 18 | 73 | 104 | 149 | 160 | 134 | 145 | 153 | 138 | 1109 |
| Gross Cost | 0.0 | 175.9 | 112.7 | 269.5 | 305.6 | 405.1 | 430.0 | 375.2 | 387.7 | 415.4 | 496.7 | 3373.8 |
| Less PY Adv Proc | | | | | | 11.4 | 12.3 | 10.3 | | 11.3 | 10.7 | 56.0 |
| Plus CY Adv Proc | | | | | 27.7 | 6.3 | | | 19.3 | 2.8 | | 56.0 |
| Net Proc (P-1) | 0.0 | 175.9 | 112.7 | 269.5 | 333.2 | 400.0 | 417.7 | 364.9 | 407.0 | 406.9 | 486.0 | 3373.8 |
| Initial Spares | | | 0.3 | 7.1 | 9.2 | 11.6 | 10.8 | 11.0 | 5.2 | 7.1 | 50.0 | 112.3 |
| Total Proc Cost | 0.0 | 175.9 | 113.0 | 276.6 | 342.4 | 411.6 | 428.5 | 375.9 | 412.2 | 414.0 | 535.9 | 3486.0 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | 5.0 | 6.3 | 3.8 | 3.3 | 2.8 | 2.7 | 2.8 | 2.8 | 2.7 | 3.9 | 3.1 |

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. FY97-99 provided the first three years of A3 LRIP vehicles. FY00 marks the first full rate 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 FY00 Budget will provide the first full rate production year for the A3 upgrade program. The A3 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 1999

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

Code

Other Related Program Elements

| A3 Advanced Procurement Detail (in Mils): | Fiscal Year | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|-------------|--------|----------|----------|----------|--------|----------|----------|
| FY TOA | | | | | | | | |
| FY2000 for FY2001 (memo) | | 11.430 | | | | | | |
| FY2000 for FY2002 (memo) | | 8.845 | | | | | | |
| FY2000 for FY2003 (memo) | | 7.400 | | | | | | |
| FY2001 (memo) | | | (11.430) | | | | | |
| FY2001 for FY2002 (memo) | | | 3.428 | | | | | |
| FY2001 for FY2003 (memo) | | | 2.879 | | | | | |
| FY2002 (memo) | | | | (12.273) | | | | |
| FY2002 for FY2003 (memo) | | | | | | | | |
| FY2003 (memo) | | | | | (10.279) | | | |
| FY2004 for FY2005 (memo) | | | | | | 11.304 | | |
| FY2004 for FY2006 (memo) | | | | | | 7.976 | | |
| FY2005 (memo) | | | | | | | (11.304) | |
| FY2005 for FY2006 (memo) | | | | | | | 2.765 | |
| FY2006 (memo) | | | | | | | | (10.741) |

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: BRADLEY BASE SUSTAINMENT (M2A3) (G80717) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|---------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | | 38046 | 18 | 2114 | 124509 | 73 | 1706 | 146716 | 104 | 1411 | 204350 | 149 | 1371 |
| 2. IBAS | | | 14744 | 18 | 819 | 43344 | 73 | 594 | 39309 | 104 | 378 | 51946 | 149 | 349 |
| 3. FLIR | | | 14639 | 27 | 542 | 37353 | 76 | 491 | 41757 | 104 | 402 | 56197 | 149 | 377 |
| 4. Other GFE | | | 2107 | | | 6485 | 73 | 89 | 6511 | 104 | 63 | 9443 | 149 | 63 |
| 5. Reman (Contractor) | | | | | | 10790 | 73 | 148 | 2795 | 104 | 27 | 4071 | 149 | 27 |
| 6. Pre Mod Depot Maint | | | | | | 1360 | 73 | 19 | 5973 | 104 | 57 | 6272 | 149 | 42 |
| SUBTOTAL | | | 69536 | | | 223841 | | | 243061 | | | 332279 | | |
| 7. Engineering--Government | | | 7511 | | | 10983 | | | 11683 | | | 12163 | | |
| 8. Engineering--Contractor | | | 24774 | | | 23833 | | | 33720 | | | 28730 | | |
| 9. Project Management Administration | | | 4149 | | | 2153 | | | 2332 | | | 2370 | | |
| 10. Reimbursable Matrix Support | | | 2498 | | | 3293 | | | 2461 | | | 2501 | | |
| 11. Test and Evaluation | | | 607 | | | 4960 | | | 1450 | | | 673 | | |
| SUBTOTAL | | | 39539 | | | 45222 | | | 51646 | | | 46437 | | |
| 12. Cummins Engine Life-of-Type (LOT) Buy | | | | | | | | | | | | | | |
| 13. Peculiar Support Equipment | | | 3450 | | | | | | 5056 | | | 14517 | | |
| 14. Classroom Spares | | | | | | | | | | | | | | |
| 15. Fielding | | | 198 | | | 427 | | | 5795 | | | 11887 | | |
| SUBTOTAL | | | 3648 | | | 427 | | | 10851 | | | 26404 | | |
| TOTAL | | | 112723 | | | 269490 | | | 305558 | | | 405120 | | |
| Gross P-1 End Cost | | | 112723 | | | 269490 | | | 305558 | | | 405120 | | |
| Less: Prior Year Adv Proc | | | | | | | | | | | | 11430 | | |
| Net P-1 Full Funding Cost | | | 112723 | | | 269490 | | | 305558 | | | 393690 | | |
| Plus: P-1 CY Adv Proc | | | | | | | | | 27675 | | | 6307 | | |
| Other Non P-1 Costs | | | | | | | | | | | | | | |
| Initial Spares | | | 286 | | | 7111 | | | 9173 | | | 11628 | | |
| Mods | | | | | | | | | | | | | | |
| TOTAL | | | 113009 | | | 276601 | | | 342406 | | | 411625 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First | QTY | Unit Cost | Specs Avail | Date Revsn Avail | RFP Issue Date | |
| Fiscal Years | | | | | Date of First | Each | \$000 | Now? | | | |
| 1. Vehicle | | | | | | | | | | | |
| FY 98 | UDLP, York PA | SS/FFP | TACOM | Nov-97 | May-99 | 18 | 2114 | YES | NO | | |
| FY 99 | UDLP, York PA | SS/FFP | TACOM | Nov-98 | Mar-00 | 73 | 1706 | YES | NO | | |
| FY 00 | UDLP, York PA | MY/FFP | TACOM | Dec-99 | Apr-01 | 104 | 1411 | YES | NO | | |
| FY 01 | UDLP, York PA | MY/FFP | TACOM | Nov-00 | Apr-02 | 149 | 1371 | YES | NO | | |
| 2. IBAS | | | | | | | | | | | |
| FY 98 | RTIS, DALLAS TX/ HAC CA | C/FFP | AMCOM | Dec-97 | Apr-99 | 18 | 819 | YES | NO | | |
| FY 99 | RTIS, DALLAS TX/ DRS CA | C/FFP | AMCOM | Nov-98 | Feb-00 | 73 | 594 | YES | NO | | |
| FY 00 | TBD | MY/FFP | AMCOM | Jan-00 | Feb-01 | 104 | 378 | YES | NO | | |
| FY 01 | TBD | MY/FFP | AMCOM | Jan-01 | Feb-02 | 149 | 349 | YES | NO | | |
| 3. FLIR | | | | | | | | | | | |
| FY 98 | RTIS, DALLAS TX | SS/FFP | NVL | Jan-98 | Jan-99 | 27 | 542 | YES | NO | | |
| FY 99 | RTIS, DALLAS TX | SS/FFP | NVL | Jan-99 | Dec-99 | 76 | 491 | YES | NO | | |
| FY 00 | RTIS, DALLAS TX | MY/FFP | NVL | Jan-00 | Dec-00 | 104 | 402 | YES | NO | | |
| FY 01 | RTIS, DALLAS TX | MY/FFP | NVL | Jan-01 | Dec-01 | 149 | 377 | YES | NO | | |

REMARKS: Multi year procurements (FY00-03) for Vehicle, IBAS and FLIR.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

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

P-1 Item Nomenclature:

BRADLEY BASE SUSTAINMENT (ADV PROC) (G80718)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | 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 | | | 0.0 | 0.0 | 27.7 | 6.3 | 0.0 | 0.0 | 19.3 | 2.8 | 0.0 | 56.1 |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 27.7 | 6.3 | 0.0 | 0.0 | 19.3 | 2.8 | 0.0 | 56.1 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 27.7 | 6.3 | 0.0 | 0.0 | 19.3 | 2.8 | 0.0 | 56.1 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: Advance Procurement for EOQ material.

JUSTIFICATION: EOQ funding supports more economical buys than can be achieved with single year procurements.

| Advance Procurement Requirements Analysis-Funding (P-10A) | | | | First System Award Date: | | First System Completion Date: | | Date: | | | | | | |
|--|--------------|----------------------|--------|---|------|-------------------------------|-------|-------|-------|-------|-------|---------------|------------|-------|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | P-1 Line Item Nomenclature / Weapon System: BRADLEY BASE SUSTAINMENT (ADV PROC) (G80718) | | | | | | | | February 1999 | | |
| (\$ in Millions) | | | | | | | | | | | | | | |
| | PLT (mos) | When Rqd (mos) | Pr Yrs | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | To Comp | Total |
| Economic Order Quantity | | | | 35.0 | 18.0 | 73.0 | 104.0 | 149.0 | 160.0 | 134.0 | 145.0 | 153.0 | 138.0 | |
| 1. Vehicle | 17 | | | | | | 2.8 | | | | 1.8 | | | 4.6 |
| 2. Flat Panel Display | 6 | | | | | | 1.0 | | | | 0.7 | | | 1.7 |
| 3. Commander's Independent Viewer | 12 | | | | | | 5.3 | | | | 3.8 | | | 9.1 |
| 4. Mass Memory Unit | 6 | | | | | | 0.7 | | | | 0.5 | | | 1.2 |
| 5. POS/NAV | 6 | | | | | | 0.9 | | | | 0.6 | | | 1.5 |
| 6. Turret Processing Unit | 12 | | | | | | 1.0 | | | | 0.7 | | | 1.7 |
| 7. Hull Processing Unit | 12 | | | | | | 0.6 | | | | 0.4 | | | 1.0 |
| 8. Gunner's Hand Station | 6 | | | | | | 0.3 | | | | 0.2 | | | .5 |
| 9. Commander's Hand Station | 6 | | | | | | 0.2 | | | | 0.2 | | | .4 |
| 10. Position Interface Box | 6 | | | | | | 0.3 | | | | 0.2 | | | .5 |
| 11. Resolver | 6 | | | | | | 0.1 | | | | 0.1 | | | .2 |
| 12. Transmission | 6 | | | | | | 0.8 | | | | 0.5 | | | 1.3 |
| 13. Turret Drive | 6 | | | | | | 0.5 | | | | 0.4 | | | .9 |
| 14. Turret Drive Control Unit | 6 | | | | | | 0.8 | | | | 0.5 | | | 1.3 |
| 15. IBAS | 13 | | | | | | 12.4 | 6.3 | | | 8.7 | 2.8 | | 30.2 |
| 16. Termination Liability | | | | | | | | | | | | | | |
| Total Advance Procurement | | | | | | | 27.7 | 6.3 | | | 19.3 | 2.8 | | 56.1 |
| Description: *Number of months (Column 3) refers to integration of components, not to EOQ material. | | | | | | | | | | | | | | |

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

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

P-1 Line Item Nomenclature / Weapon System:
BRADLEY BASE SUSTAINMENT (ADV PROC) (G80718)

(\$ in Millions)

| | PLT (mos) | Quantity Per Assembly | Unit Cost | 2000 | | | 2001 | | |
|-----------------------------------|--------------|-----------------------------|--------------|------|---------------------------|-----------------------|------|---------------------------|-----------------------|
| | | | | Qty | Contract Forecast Date | Total Cost Request | Qty | Contract Forecast Date | Total Cost Request |
| Economic Order Quantity (EOQ) | | | | | Dec 99 | | 149 | Nov 00 | |
| 1. Vehicle | 17 | 1 | N/A | N/A | Dec 99 | 2.8 | | Nov 00 | |
| 2. Flat Panel Display | 6 | 2 | N/A | N/A | Dec 99 | 1.0 | | Nov 00 | |
| 3. Commander's Independent Viewer | 12 | 1 | N/A | N/A | Dec 99 | 5.3 | | Nov 00 | |
| 4. Mass Memory Unit | 6 | 1 | N/A | N/A | Dec 99 | 0.7 | | Nov 00 | |
| 5. POS/NAV | 6 | 1 | N/A | N/A | Dec 99 | 0.9 | | Nov 00 | |
| 6. Turret Processing Unit | 12 | 1 | N/A | N/A | Dec 99 | 1.0 | | Nov 00 | |
| 7. Hull Processing Unit | 12 | 1 | N/A | N/A | Dec 99 | 0.6 | | Nov 00 | |
| 8. Gunner's Hand Station | 6 | 1 | N/A | N/A | Dec 99 | 0.3 | | Nov 00 | |
| 9. Commander's Hand Station | 6 | 1 | N/A | N/A | Dec 99 | 0.2 | | Nov 00 | |
| 10. Position Interface Box | 6 | 1 | N/A | N/A | Dec 99 | 0.3 | | Nov 00 | |
| 11. Resolver | 6 | 1 | N/A | N/A | Dec 99 | 0.1 | | Nov 00 | |
| 12. Transmission | 6 | 1 | N/A | N/A | Dec 99 | 0.8 | | Nov 00 | |
| 13. Turret Drive | 6 | 1 | N/A | N/A | Dec 99 | 0.5 | | Nov 00 | |
| 14. Turret Drive Control Unit | 6 | 1 | N/A | N/A | Dec 99 | 0.8 | | Nov 00 | |
| 15. IBAS | 13 | 1 | N/A | N/A | Jan 00 | 12.4 | | Jan 01 | 6.3 |
| 16. Termination Liability | 0 | 0 | N/A | N/A | | | | | |
| Total Advance Procurement | | | | | | 27.7 | | | 6.3 |

Description: Quantity and unit cost are not applicable. Funding is for EOQ material, not full up components.

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)

Date: February 1999

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

P-1 Line Item Nomenclature / Weapon System:
BRADLEY BASE SUSTAINMENT (ADV PROC) (G80718)

| (\$ in Millions) | | | | | | | | | | | | |
|--------------------------------|--------|------|------|------|-------|--------|--------|--------|--------|--------|---------|---------|
| | Pr Yrs | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | To Comp | Total |
| Proposal w/o AP | | | | | | | | | | | | |
| Then Year Cost | | | | | 34887 | 158910 | 276270 | 325049 | 323381 | 328969 | 814777 | 2262243 |
| Constant Year Cost | | | | | 34096 | 152769 | 260903 | 300860 | 293130 | 292079 | 695599 | 2029436 |
| Present Value | | | | | 33900 | 145816 | 239388 | 265955 | 249844 | 240016 | 534015 | 1708933 |
| AP Proposal | | | | | | | | | | | | |
| Then Year Cost | | | | | 35422 | 154746 | 251187 | 282510 | 279907 | 292382 | 593994 | 1890148 |
| Constant Year Cost | | | | | 34619 | 148766 | 237215 | 261486 | 253723 | 259595 | 456232 | 1651636 |
| Present Value | | | | | 34420 | 141995 | 217654 | 231150 | 216256 | 213322 | 390021 | 1444817 |
| AP Savings (Difference) | | | | | | | | | | | | |
| Then Year Cost | | | | | 535 | -4164 | -25083 | -42539 | -43474 | -36587 | -220783 | -372095 |
| Constant Year Cost | | | | | 523 | -4003 | -23688 | -39373 | -39407 | -32484 | -239367 | -377800 |
| Present Value | | | | | 520 | -3821 | -21734 | -34805 | -33588 | -26694 | -143994 | -264116 |

Remarks: There are currently no proposals; these are estimates.

| Advance Procurement Requirements Analysis-Execution (P-10D) | | | | | | | | | | | | Date: February 1999 | | | |
|--|--------------|------|------------------------------|----------------------------|--------------------------|----------------------------|---|------------------------------|----------------------------|--------------------------|----------------------------|---------------------|------------------------------|--------|------------------------------|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | | | | P-1 Line Item Nomenclature / Weapon System: BRADLEY BASE SUSTAINMENT (ADV PROC) (G80718) | | | | | | | | |
| (\$ in Millions) | | | | | | | | | | | | | | | |
| | PLT (mos) | 1998 | | | | | 1999 | | | | | 2000 | | 2001 | |
| | | Qty | Contract Forecast Date | Actual Contract Date | Total Cost Request | Actual Contract Cost | Qty | Contract Forecast Date | Actual Contract Date | Total Cost Request | Actual Contract Cost | Qty | Contract Forecast Date | Qty | Contract Forecast Date |
| End Item | | | | | | | | | | | 104 | Dec 99 | 149 | Nov 00 | |
| 1. Vehicle | 17 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 2. Flat Panel Display | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 3. Commander's Independent Viewer | 12 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 4. Mass Memory Unit | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 5. POS/NAV | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 6. Turret Processing Unit | 12 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 7. Hull Processing Unit | 12 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 8. Gunner's Hand Station | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 9. Commander's Hand Station | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 10. Position Interface Box | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 11. Resolver | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 12. Transmission | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 13. Turret Drive | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 14. Turret Drive Control Unit | 6 | | | | | | | | | | | Dec 99 | | Nov 00 | |
| 15. IBAS | 13 | | | | | | | | | | | Jan 00 | | Jan 01 | |
| 16. Termination Liability | 0 | | | | | | | | | | | | | | |
| Total Advance Procurement | | | | | | | | | | | | | | | |
| Description: Planned advance procurement. No advance procurement history. | | | | | | | | | | | | | | | |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E) | | | | | | | | | | | | | Date: February 1999 | | |
|--|---------------|-------|-----|-----|------|-----|---|-----|-----|-----|-----|-----|---------------------|----------------------|--|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | | | | P-1 Line Item Nomenclature / Weapon System: BRADLEY BASE SUSTAINMENT (ADV PROC) (G80718) | | | | | | | | |
| (\$ 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 | | |
| FY 98 | | | | | | | | | | | | | | | |
| Obl Plan | | | | | | | | | | | | | | | |
| Actual | | | | | | | | | | | | | | | |
| Exp Plan | | | | | | | | | | | | | | | |
| Actual | | | | | | | | | | | | | | | |
| FY 99 | | | | | | | | | | | | | | | |
| Obl Plan | | | | | | | | | | | | | | | |
| Actual | | | | | | | | | | | | | | | |
| Exp Plan | | | | | | | | | | | | | | | |
| Actual | | | | | | | | | | | | | | | |
| FY 00 | | | | | | | | | | | | | | | |
| Obl Plan | | | | | | | | | | | | | | | |
| FY 01 | | | | | | | | | | | | | | | |
| Obl Plan | | | | | | | | | | | | | | | |

Narrative: There is no termination liability within this advance procurement line. EOQ requirements were calculated based on a percentage of the bill of material cost and sub-contractor component cost.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 225.4 | 0.6 | 0.0 | 12.7 | 23.4 | 18.7 | 2.6 | 3.2 | 2.5 | 4.4 | 18.2 | 311.8 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 225.4 | 0.6 | 0.0 | 12.7 | 23.4 | 18.7 | 2.6 | 3.2 | 2.5 | 4.4 | 18.2 | 311.8 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 225.4 | 0.6 | 0.0 | 12.7 | 23.4 | 18.7 | 2.6 | 3.2 | 2.5 | 4.4 | 18.2 | 311.8 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

- Bradley Advanced Training System (BATS) - Two Configurations, i.e., Integrated BFVS A3 crew precision gunnery training system and maneuver simulator training system.

- Bradley Desktop Trainer (BDT) - Desktop computer designed to support individual and networked unit training.

The Tactical trainers will train a target audience of 2,500 commanders and gunners per year. An average of 600 soldiers will be trained annually on the A3 Maintenance trainer. The A3 will be fielded in high priority Force Package 1 & 2 units in FORSCOM, USAREUR, Critical Prepositioned Assets, TRADOC and NTC.

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 WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: BRADLEY FVS TRAINING DEVICES (G20900) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 (BATS) | | | | | | | | | | | | | | |
| | | | | | | 12000 | 8 | 1500 | 22300 | 16 | 1394 | 17820 | 13 | 1371 |
| 2. Bradley Desktop Trainer | | | | | | | | | | | | | | |
| | | | | | | 371 | 17 | 22 | 492 | 22 | 22 | 227 | 10 | 23 |
| Government Engineering | | | | | | | | | | | | | | |
| | | | | | | 324 | | | 649 | | | 668 | | |
| TOTAL | | | | | | | | | | | | | | |
| | | | | | | 12695 | | | 23441 | | | 18715 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | Weapon System Type: | | | P-1 Line Item Nomenclature: BRADLEY FVS TRAINING DEVICES (G20900) | | | | | |
|---|-------------------------|--------------------------|-----------------|------------|--|----------|-----------------|------------------|------------------|----------------|
| WBS Cost Elements: 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 | | | | | | | | | | |
| FY99 | United Defense (LP) | SS FFP | TACOM | May-99 | May-00 | 8 | 1500 | NA | NA | NA |
| FY00 | United Defense (LP) | FFP | TACOM | Dec-99 | Nov-00 | 16 | 1394 | NA | NA | NA |
| FY01 | United Defense (LP) | FFP | TACOM | Dec-00 | Nov-01 | 13 | 1371 | NA | NA | NA |
| 2. Bradley Desktop Trainer | | | | | | | | | | |
| FY99 | United Defense (LP) | FFP | TACOM | May-99 | May-00 | 17 | 22 | NA | NA | NA |
| FY00 | United Defense (LP) | FFP | TACOM | Nov-99 | Nov-00 | 22 | 22 | NA | NA | NA |
| FY01 | United Defense (LP) | FFP | TACOM | Nov-00 | Nov-01 | 10 | 23 | NA | NA | NA |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles
 P-1 Item Nomenclature: BREACHER TRAINING DEVICES (G84000)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 14.8 | 1.4 | 0.0 | 0.0 | 0.0 | 16.6 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 14.8 | 1.4 | 0.0 | 0.0 | 0.0 | 16.6 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 14.8 | 1.4 | 0.0 | 0.0 | 0.0 | 16.6 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The Grizzly (Breacher) Training Aids, Simulations and Simulators (TADSS) enable the total training capability that ensures the Army's combat-ready Engineer and Ordnance Regiments can support the combined arms mounted maneuver force. Grizzly TADSS provide a life cycle training capability for personnel responsible for operating, maintaining, and tactically employing the Grizzly system. This capability supports all phases of professional development and training including institutional, unit, and combined arms training. The Grizzly TADSS program provides for the development of a training strategy and supporting tools to train operators, leaders, and maintainers. The program fields Grizzly TADSS to support institutional and Combat Training Center (CTC) training, and fields a unit training capability concurrent with initial (FY04) vehicle fieldings. The exact quantity and mix of Grizzly TADSS is to be determined by the offerors as part of their Engineering and Manufacturing Development (EMD) contract proposals.

JUSTIFICATION: Grizzly TADSS optimize training effectiveness, minimize the Operation and Support (O&S) costs of on-vehicle training, and minimize environmental impact to installations.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: BREACHER TRAINING DEVICES (G84000) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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. Project Management | | | | | | | | | | | | 375 | | |
| TOTAL | | | | | | | | | | | | 375 | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.4 | 14.9 | 1.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.4 | 14.9 | 1.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.4 | 14.9 | 1.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The Wolverine (Heavy Assault Bridge) Training Aids, Devices, Simulations, and Simulators (TADSS) enable the total training capability that ensures the Army's combat ready Engineer and Ordnance Regiments can support the combined arms mounted maneuver force. Wolverine TADSS provide a life cycle training capability for personnel responsible for operating, maintaining, and tactically employing the Wolverine system. This capability supports all phases of professional development and training including institutional, unit, and combined arms training. The Wolverine TADSS program provides for the development of a training strategy and supporting tools to train operators, leaders, and maintainers. The program fields Wolverine TADSS to support institutional and Combat Training Center (CTC) training, and fields a unit training capability concurrent with initial (FY00) vehicle fieldings. The exact quantity and mix of Wolverine TADSS is to be determined by the as part of the Engineering and Manufacturing Development (EMD) evaluation process.

JUSTIFICATION: Wolverine TADSS optimize training effectiveness, minimize the Operation and Support (O&S) costs of on-vehicle training, and minimize environmental impact to installations.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: HAB TRAINING DEVICES (G84600) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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. Trainer/Simulator Manufacturing | | | | | | | | | | | | | | |
| Part Task Operators Trainers | | | | | | | | | 841 | 36 | 23 | | | |
| Maintenance Trainers | | | | | | | | | 2015 | 21 | 96 | | | |
| Mission/Driver Trainers | | | | | | | | | 8229 | 4 | 2057 | | | |
| Tactical Engagement Simulators | | | | | | | | | 969 | 30 | 32 | | | |
| Unit Sustainment Trainers | | | | | | | | | 494 | 100 | 5 | | | |
| Software Support Environment (SSE) | | | | | | | | | 657 | 1 | 657 | | | |
| SUBTOTAL | | | | | | | | | 13205 | | | | | |
| 2. Contract Engineering | | | | | | | | | 795 | | | 405 | | |
| 3. Project Management | | | | | | 385 | | | 450 | | | 396 | | |
| 4. Provisioned Items | | | | | | | | | 285 | | | 75 | | |
| 5. CLS Support | | | | | | | | | 175 | | | 363 | | |
| TOTAL | | | | | | 385 | | | 14910 | | | 1239 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | Weapon System Type: | | P-1 Line Item Nomenclature: HAB TRAINING DEVICES (G84600) | | | | |
|---|-------------------------|--------------------------|-----------------|---------------------|------------------------|--|-----------------|------------------|------------------|----------------|
| WBS Cost Elements: 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. Trainer/Simulator Manufacturing | | | | | | | | | | |
| Part Task Operators Trainers FY 00 | TBD | C-CPAF OPTION | STRICOM | Jun-00 | Oct-00 | 36 | 23 | NO | N/A | Jan 99 |
| Maintenance Trainers FY 00 | TBD | C-CPAF OPTION | STRICOM | Jun-00 | Jan-01 | 21 | 96 | NO | N/A | Jan 99 |
| Mission/Driver Trainers FY 00 | TBD | C-CPAF OPTION | STRICOM | Jun-00 | Aug-01 | 4 | 2057 | NO | N/A | Jan 99 |
| Tactical Engagement Simulators FY 00 | TBD | C-CPAF OPTION | STRICOM | Jun-00 | Jul-00 | 30 | 32 | NO | N/A | Jan 99 |
| Unit Sustainment Trainers FY 00 | TBD | C-CPAF OPTION | STRICOM | Jun-00 | Feb-01 | 100 | 5 | NO | N/A | Jan 99 |
| Software Support Environment (SSE) FY 00 | TBD | C-CPAF OPTION | STRICOM | Jun-00 | Jan-01 | 1 | 657 | NO | N/A | Jan 99 |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 10.4 | 0.8 | 0.0 | 2.1 | 4.3 | 4.7 | 1.6 | 4.4 | 0.0 | 0.0 | 0.0 | 28.3 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 10.4 | 0.8 | 0.0 | 2.1 | 4.3 | 4.7 | 1.6 | 4.4 | 0.0 | 0.0 | 0.0 | 28.3 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 10.4 | 0.8 | 0.0 | 2.1 | 4.3 | 4.7 | 1.6 | 4.4 | 0.0 | 0.0 | 0.0 | 28.3 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION:
 Software upgrades to BFV Conduct of Fire Trainer (COFT)s, ODS COFTS, Precision Gunnery System, Close Combat Tactical Trainer (CCTT), Bradley Desktop Trainer, and Maintenance Training Systems.
 The tactical trainers will train an annual target audience of 3,600 commanders and gunners. An annual average of 600 soldiers will be trained on upgraded Maintenance trainers. Intended sites for upgraded COFTS are: 3-161 IN (81SMB), 1-118 IN (218 SMB), 1-163 IN(116 SAB), 2-136 IN (MN-STAC), 2-278 ACS (278 ACR), 3-278 ACS (278ACR), 1-119 IN (30 SMB), 1-120 IN (30 SMB), 1-167 IN (31SAB), 1-124 CAV (49 AD), 1-141 IN (49 AD), 2-141 IN (49 AD), 3-144 IN (49AD), CAMP SHELBY MS, 278 ACR, 2-121 IN (48 SMB), E-131 CAV (11 ACR)

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.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

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 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Software Upgrades | | | | | | | | | | | |
| 1-96-05-4513 | Operational | 11.2 | 2.1 | 4.3 | 4.7 | 1.6 | 4.4 | 0.0 | 0.0 | 0.0 | 28.3 |
| Totals | | 11.2 | 2.1 | 4.3 | 4.7 | 1.6 | 4.4 | 0.0 | 0.0 | 0.0 | 28.3 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Software Upgrades 1-96-05-4513

MODELS OF SYSTEMS AFFECTED: BFV COFTs, Precision Gunnery System, BATS, Bradley Desktop Trainer, Maintenance Training Systems.

DESCRIPTION / JUSTIFICATION:

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. Planned upgrades include VIC 3 intercom adapter for existing Through Sight Video (TSV), Precision Gunnery System (PGS), MILES and UCFT Mods.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

| | |
|---|----|
| Preliminary Design Review | NA |
| Critical Design Review | NA |
| Contractor Test & Evaluation | NA |
| Initial Operational Test and Evaluation | NA |
| IPR Production Decision | NA |
| TDP Available | NA |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| Pr Yr | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 12 Months PRODUCTION LEADTIME: 12 Months
 Contract Dates: FY 1999 2Q99 FY 2000 1Q00 FY 2001 1Q01
 Delivery Date: FY 1999 2Q00 FY 2000 1Q01 FY 2001 1Q02

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|------------------------------|----------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|-----|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Software Mods -A2 | | 11.2 | | | | | | | | | | | | | | | | | | | 11.2 |
| Software Mods -A3 | | | | | | 2.3 | | 3.5 | | 1.6 | | 2.5 | | | | | | | | | 9.8 |
| PGS | | | 128 | 1.5 | 100 | 1.3 | | | | | | | | | | | | | | 228 | 2.8 |
| UCOFT | | | 10 | 0.2 | | | | | | | 6 | 1.3 | | | | | | | | 16 | 1.5 |
| MILES Superlevation box | | | 300 | 0.3 | 300 | 0.3 | | | | | | | | | | | | | | 600 | 0.6 |
| MILES VIS Adapter | | | | | 150 | 0.1 | 182 | 0.1 | | | | | | | | | | | | 332 | 0.2 |
| TSV | | | | | 15 | 0.4 | 40 | 1.1 | | | 25 | 0.7 | | | | | | | | 80 | 2.2 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 11.2 | | 2.1 | | 4.3 | | 4.7 | | 1.6 | | 4.4 | | | | | | | | | 28.3 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 848 | 48 | 36 | | | | | | | | | 932 |
| Gross Cost | 458.9 | 58.3 | 38.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 555.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Porch (P-1) | 458.9 | 58.3 | 38.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 555.5 |
| Initial Spares | 1.8 | | | | | | | | | | | 1.8 |
| Total Proc Cost | 460.7 | 58.3 | 38.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 557.3 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | 0.5 | 1.2 | 1.1 | | | | | | | | | |

DESCRIPTION:
 The Field Artillery Ammunition Support Vehicle (FAASV) is a full tracked 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 of 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 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 (STS-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 or the SPH with the only tooled and experienced producer.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|-----------|------|---|-----------|------|---------------------|-----------|------|------------------------|-----------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | 24490 | 36 | 680 | | | | | | | | | |
| 2. Engine | | | 1039 | 36 | 29 | | | | | | | | | |
| 3. Roadwheels | | | 108 | 36 | 3 | | | | | | | | | |
| 4. Track | | | 516 | 36 | 14 | | | | | | | | | |
| 5. BII/COEI | | | 698 | | | | | | | | | | | |
| 6. Government Furnished Materiel | | | 1781 | | | | | | | | | | | |
| 7. Engineering Change Orders | | | 150 | | | | | | | | | | | |
| 8. Engineering - Government | | | 3640 | | | | | | | | | | | |
| 9. Engineering - Contractor | | | 3334 | | | | | | | | | | | |
| 10. Project Management Administration | | | 970 | | | | | | | | | | | |
| 11. Systems Testing | | | 361 | | | | | | | | | | | |
| 12. Fielding | | | 1202 | | | | | | | | | | | |
| TOTAL | | | 38289 | | | | | | | | | | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | Weapon System Type: | | P-1 Line Item Nomenclature: FIELD ARTILLERY AMMUNITION SUPPORT VEH (G80100) | | | | | |
|---|---|--------------------------|-----------------|---------------------|------------------------|--|-----------------|------------------|------------------|----------------|--|
| WBS Cost Elements: 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 98 | United Defense (UDLP-GSD) York, PA | SS/FFP | TACOM | Mar-98 | May-99 | 36 | 680 | | | Jan 98 | |
| 2. Engine FY 98 | Detroit Deisel Detroit, MI | SS/FFP | TACOM | Feb-98 | Sep-98 | 36 | 29 | | | | |
| 3. Roadwheels FY 98 | North American Molded Products Hartville, OH | C/FFP | TACOM | Feb-98 | Oct-98 | 36 | 3 | | | | |
| 4. Track FY 98 | Detroit Deisel Detroit, MI | C/FFP | TACOM | Jan-98 | Sep-98 | 36 | 14 | | | | |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles
 P-1 Item Nomenclature: ABRAMS TANK TRAINING DEVICES (GB1300)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 45.8 | 12.5 | 13.1 | 13.4 | 8.1 | 10.6 | 11.9 | 12.2 | 13.0 | 5.9 | | 146.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 45.8 | 12.5 | 13.1 | 13.4 | 8.1 | 10.6 | 11.9 | 12.2 | 13.0 | 5.9 | | 146.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 45.8 | 12.5 | 13.1 | 13.4 | 8.1 | 10.6 | 11.9 | 12.2 | 13.0 | 5.9 | | 146.5 |
| 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.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: ABRAMS TANK TRAINING DEVICES (GB1300) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------------|---|--------------|------------|---------------------|--------------|------------|------------------------|--------------|------------|-------------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | | 7700 | | | 8800 | | | | | | 9024 | | |
| 2) Government Support | | | 550 | | | 400 | | | | | | 200 | | |
| 3) First Article Test | | | | | | 300 | | | | | | | | |
| 4) Non Recurring Cost | | | 1768 | | | | | | | | | | | |
| SUBTOTAL | | | 10018 | 7 | 1431 | 9500 | 8 | 1188 | | | | 9224 | 9 | 1025 |
| M1A2 Maintenance Trainers | | A | | | | | | | | | | | | |
| 1) Production | | | | | | | | | 1250 | | | | | |
| 2) Government Support | | | | | | | | | 200 | | | | | |
| 3) First Article Test | | | | | | 150 | | | 250 | | | | | |
| 4) Non Recurring Cost | | | | | | | | | | | | | | |
| SUBTOTAL | | | | | | 150 | | | 1700 | 2 | | 850 | | |
| M1A2 Non System Integration Kits | | A | | | | | | | | | | | | |
| 1) Production | | | | | | | | | 752 | | | | | |
| 2) Government Support | | | | | | | | | 100 | | | | | |
| 3) First Article Test | | | | | | | | | | | | | | |
| 4) Non Recurring Cost | | | | | | | | | | | | | | |
| SUBTOTAL | | | | | | | | | 852 | VAR | | VAR | | |
| M1A2 Software Upgrades | | A | | | | | | | | | | | | |
| 1) Production | | | | | | | | | | | | | | |
| 2) Government Support | | | 100 | | | 100 | | | 100 | | | 100 | | |
| 3) First Article Test | | | | | | | | | 900 | | | 882 | | |
| 4) Non Recurring Cost | | | 825 | | | 640 | | | | | | | | |
| SUBTOTAL | | | 925 | VAR | VAR | 740 | VAR | VAR | 1000 | VAR | VAR | 982 | VAR | VAR |
| SEP Integration | | A | | | | | | | | | | | | |
| 1) Production | | | 633 | | | 2836 | | | 4434 | | | 350 | | |
| 2) Government Support | | | 50 | | | 50 | | | 100 | | | 50 | | |
| 3) First Article Test | | | | | | 100 | | | | | | | | |
| 4) Non Recurring Cost | | | 1450 | | | | | | | | | | | |
| SUBTOTAL | | | 2133 | VAR | VAR | 2986 | VAR | VAR | 4534 | VAR | VAR | 400 | VAR | VAR |
| TOTAL | | | 13076 | | | 13376 | | | 8086 | | | 10606 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | Weapon System Type: | | | P-1 Line Item Nomenclature: ABRAMS TANK TRAINING DEVICES (GB1300) | | | | |
|---|---|--------------------------|-----------------|---------------------|------------------------|----------|--|------------------|------------------|----------------|--|
| WBS Cost Elements: 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 | |
| Advance Gunnery Training System (AGTS) | | | | | | | | | | | |
| FY98 | Lockheed Martin, Orlando, FL | C-FFP | STRICOM | Jun-98 | Mar-00 | 7 | 1431 | Yes | No | N/A | |
| FY99 | Lockheed Martin, Orlando, FL | C-FFP | STRICOM | Nov-98 | Oct-00 | 8 | 1188 | Yes | No | N/A | |
| FY01 | Lockheed Martin, Orlando, FL | C-FFP | STRICOM | Mar-01 | Mar-03 | 9 | 1025 | Yes | No | N/A | |
| M1A2 Maintenance Trainers | | | | | | | | | | | |
| FY00 | Research Triangle Institute (RTI), Charlotte, NC | C-FFP | STRICOM | Dec-99 | Oct-00 | 2 | 850 | Yes | No | N/A | |
| M1A2 Non System Integration Kits 1/ | | | | | | | | | | | |
| FY00 | Various | C-FFP | STRICOM | Mar-00 | Jun-01 | VAR | VAR | No | No | N/A | |
| M1A2 Software Upgrades 2/ | | | | | | | | | | | |
| FY98 | Various | C-FFP | STRICOM | Dec-97 | Dec-98 | VAR | VAR | No | No | N/A | |
| FY99 | Various | C-FFP | STRICOM | Mar-99 | Mar-00 | VAR | VAR | No | No | N/A | |
| FY00 | Various | C-FFP | STRICOM | Mar-00 | Mar-01 | VAR | VAR | No | No | N/A | |
| FY01 | Various | C-FFP | STRICOM | Mar-01 | Mar-02 | VAR | VAR | No | No | N/A | |
| SEP Integration | | | | | | | | | | | |
| FY98 | Lockheed Martin, Orlando, FL | C-FFP | STRICOM | Jan-98 | N/A | VAR | VAR | No | No | N/A | |
| FY99 | Lockheed Martin, Orlando, FL | C-FFP | STRICOM | Feb-99 | Mar-00 | VAR | VAR | No | No | N/A | |
| FY00 | Lockheed Martin, Orlando, FL | C-FFP | STRICOM | Feb-00 | Mar-01 | VAR | VAR | No | No | N/A | |
| FY01 | Various | C-FFP | STRICOM | Feb-01 | Mar-02 | 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 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | 5 | 5 | 10 | 12 | 18 | 20 | 20 | 12 | | | 102 |
| Gross Cost | 0.0 | 48.8 | 29.6 | 48.0 | 54.5 | 76.2 | 76.6 | 80.7 | 62.1 | 13.6 | 0.0 | 490.1 |
| Less PY Adv Proc | | | | | | 0.8 | 2.1 | 3.3 | | | | 6.3 |
| Plus CY Adv Proc | | | | | 2.6 | 2.5 | 1.2 | | | | | 6.3 |
| Net Proc (P-1) | 0.0 | 48.8 | 29.6 | 48.0 | 57.1 | 77.9 | 75.7 | 77.3 | 62.1 | 13.6 | 0.0 | 490.1 |
| Initial Spares | | | 0.9 | 2.5 | 2.6 | 0.7 | 1.5 | 1.3 | | | | 9.4 |
| Total Proc Cost | 0.0 | 48.8 | 30.5 | 50.5 | 59.7 | 78.6 | 77.2 | 78.7 | 62.1 | 13.6 | 0.0 | 499.5 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | 9.8 | 6.1 | 5.0 | 5.0 | 4.4 | 3.9 | 3.9 | 5.2 | | | 4.9 |

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. FY00 is the first year of a planned four year Multi-Year Contract. FY04 is planned as a fifth year option to buy out the program.

Exhibit P-40C Budget Item Justification Sheet

Date

February 1999

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

| C2V Advanced Procurement Detail (In Mils): | Fiscal Year | 2000 | 2001 | 2002 | 2003 |
|--|-------------|------|-------|--------|--------|
| FY2000 For FY2001 (memo) | | .794 | | | |
| FY2000 For FY2002 (memo) | | .882 | | | |
| FY2000 For FY2003 (memo) | | .883 | | | |
| FY2001 (memo) | | | -.794 | | |
| FY2001 For FY2002 (memo) | | | 1.233 | | |
| FY2001 For FY2003 (memo) | | | 1.233 | | |
| FY2002 (memo) | | | | -2.115 | |
| FY2002 For FY2003 (memo) | | | | 1.233 | |
| FY2003 (memo) | | | | | -3.349 |

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: COMMAND & CONTROL VEHICLE (G84200) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|-----------------------------|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | 11700 | 5 | 2340 | 18878 | 10 | 1888 | 22986 | 12 | 1916 | 32040 | 18 | 1780 |
| 2 | Transmission | | 692 | 5 | 138 | 2000 | 10 | 200 | 2403 | 12 | 200 | 3663 | 18 | 204 |
| 3 | Other GFE | | 191 | 5 | 38 | 400 | 10 | 40 | 488 | 12 | 41 | 746 | 18 | 41 |
| 4 | Mission Module Components | | 2186 | 10 | 219 | 5276 | 18 | 293 | | | | 17476 | 18 | 971 |
| SUBTOTAL | | | 14769 | | | 26554 | | | 25877 | | | 53925 | | |
| 5 | Tooling/Other Non-Recurring | | 1450 | | | | | | | | | | | |
| 6 | FAT/Qual of Vendors | | | | | | | | 1935 | | | | | |
| SUBTOTAL | | | 1450 | | | | | | 1935 | | | | | |
| 7 | Test | | | | | 912 | | | 2282 | | | 813 | | |
| 8 | Engr Govt | | 2725 | | | 2346 | | | 2769 | | | 2823 | | |
| 9 | Engr Cntr | | 9058 | | | 10330 | | | 14769 | | | 11606 | | |
| 10 | Proj Mgt Admin | | 469 | | | 500 | | | 471 | | | 481 | | |
| 11 | Reimbursable Matrix | | 453 | | | 410 | | | 500 | | | 510 | | |
| 12 | Software Support | | | | | 362 | | | 282 | | | 287 | | |
| 13 | Logistics | | 651 | | | 2827 | | | 5660 | | | 5778 | | |
| 14 | TMDE (DSESTS) | | | | | 3751 | | | | | | | | |
| TOTAL | | | 29575 | | | 47992 | | | 54545 | | | 76223 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | Weapon System Type: | | | P-1 Line Item Nomenclature: COMMAND & CONTROL VEHICLE (G84200) | | | | |
|---|---------------------------|--------------------------|-----------------|---------------------|------------------------|----------|---|------------------|------------------|----------------|--|
| WBS Cost Elements: 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 98 | UDLP, York, PA | SS/FFP | TACOM | Dec -97 | Jun-99 | 5 | 2340 | | | | |
| FY 99 | UDLP, York, PA | SS/FFP | TACOM | Dec -98 | Jun-00 | 10 | 1888 | | | | |
| FY 00 | UDLP, York, PA | MY/FFP | TACOM | Dec -99 | Jun-01 | 12 | 1916 | | | | |
| FY 01 | UDLP, York, PA | MY/FFP | TACOM | Dec -00 | Jun-02 | 18 | 1780 | | | | |
| 2 Transmission | | | | | | | | | | | |
| FY 98 | GDLS, Muskegon, MI | SS/FFP | TACOM | Mar-98 | Apr-99 | 5 | 138 | | | | |
| FY 99 | GDLS, Muskegon, MI | SS/FFP | TACOM | Mar-99 | Apr-00 | 10 | 200 | | | | |
| FY 00 | GDLS, Muskegon, MI | SS/FFP | TACOM | Mar-00 | Apr-01 | 12 | 200 | | | | |
| FY 01 | GDLS, Muskegon, MI | SS/FFP | TACOM | Mar-01 | Apr-02 | 18 | 204 | | | | |
| 4 Mission Module Components | | | | | | | | | | | |
| FY 98 | L3 Comm. Sys., Camden, NJ | FP-Op | CECOM | Dec-97 | Jun-99 | 10 | 219 | | | | |
| FY 99 | L3 Comm. Sys., Camden, NJ | FP-Op | CECOM | Dec -98 | Jun-00 | 18 | 293 | | | | |
| FY 01 | TBD * | TBD | CECOM | Dec -00 | Jun-02 | 18 | 971 | | | | |

REMARKS: L3Comm Systems, Camden, NJ - L3 Communications Systems, Camden, NJ
 FY99: High Transmission cost reflects reduced business base.
 TBD * To be determined after examination of acquisition strategy to align mission module to vehicle quantities.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

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

P-1 Item Nomenclature:

COMMAND & CONTROL VEHICLE (ADV PROC) (G84200)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | | | | | | | | | | | | |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | 0.0 | 0.0 | 2.6 | 2.5 | 1.2 | 0.0 | 0.0 | 0.0 | | 6.3 |
| Net Proc (P-1) | | | 0.0 | 0.0 | 2.6 | 2.5 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.3 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | | | 0.0 | 0.0 | 2.6 | 2.5 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.3 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: Advance procurement for EOQ material.

JUSTIFICATION: EOQ funding supports more economical buys than can be achieved with single year procurements.

| Advance Procurement Requirements Analysis-Funding (P-10A) | | | | First System Award Date: December 1999 | | | First System Completion Date: June 2001 | | | Date: February 1999 | | | | |
|--|--------------|----------------------|--------|---|------|--|--|------|------|------------------------|------|------|------------|-------|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | | | P-1 Line Item Nomenclature / Weapon System: COMMAND & CONTROL VEHICLE (ADV PROC) (G84200) | | | | | | | | |
| (\$ in Millions) | | | | | | | | | | | | | | |
| | PLT (mos) | When Rqd (mos) | Pr Yrs | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | To Comp | Total |
| End Item Quantity: | | | | | | | 12 | 18 | 20 | 20 | | | | 70 |
| EOQ Basic Vehicle | 18 | | | | | | 2.6 | | | | | | | 2.6 |
| EOQ Mission Module | 12 | | | | | | | 2.5 | 1.2 | | | | | 3.7 |
| Term Liability | | | | | | | 0.0 | 0.0 | 0.0 | | | | | |
| Total Advance Procurement | | | | | | | 2.6 | 2.5 | 1.2 | | | | | 6.3 |
| Description: EOQ Funding for four year Multi Year FY00-FY03. | | | | | | | | | | | | | | |

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

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

P-1 Line Item Nomenclature / Weapon System:
COMMAND & CONTROL VEHICLE (ADV PROC) (G84200)

| (\$ in Millions) | | | | | | | | | |
|----------------------------------|-----------|-----------------------|-----------|------|------------------------|--------------------|------|------------------------|--------------------|
| | PLT (mos) | Quantity Per Assembly | Unit Cost | 2000 | | | 2001 | | |
| | | | | Qty | Contract Forecast Date | Total Cost Request | Qty | Contract Forecast Date | Total Cost Request |
| End Item | | | | 12 | Dec 99 | | 18 | Dec 00 | |
| EOQ Basic Vehicle | 18 | 1 | N/A | N/A | Dec 99 | 2.6 | 18 | Dec 00 | |
| EOQ Mission Module | 12 | 1 | N/A | N/A | Dec 99 | | 18 | Dec 00 | 2.5 |
| Termination Liability | | | | | | | | | |
| Total Advance Procurement | | | | | | 2.6 | | | 2.5 |

Description: Quantity and unit cost are not applicable. Funding is for EOQ material, not full up components.

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)

Date: February 1999

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

P-1 Line Item Nomenclature / Weapon System:
COMMAND & CONTROL VEHICLE (ADV PROC) (G84200)

| (\$ in Millions) | | | | | | | | | | | | |
|--------------------------------|--------|------|------|------|------|-------|-------|-------|-------|-------|---------|--------|
| | Pr Yrs | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | To Comp | Total |
| Proposal w/o AP | | | | | | | | | | | | |
| Then Year Cost | | | | | 3322 | 17870 | 38281 | 51219 | 48115 | 23318 | 8997 | 191122 |
| Constant Year Cost | | | | | 3247 | 17179 | 36152 | 47407 | 43614 | 20703 | 7770 | 176072 |
| Present Value | | | | | 3228 | 16398 | 33170 | 41907 | 37174 | 17013 | 6084 | 154974 |
| AP Proposal | | | | | | | | | | | | |
| Then Year Cost | | | | | 3354 | 17477 | 35832 | 45925 | 41725 | 19991 | 7705 | 172009 |
| Constant Year Cost | | | | | 3278 | 16802 | 33839 | 42507 | 37822 | 17749 | 6654 | 158651 |
| Present Value | | | | | 3259 | 16037 | 31048 | 37576 | 32237 | 14585 | 5210 | 139952 |
| AP Savings (Difference) | | | | | | | | | | | | |
| Then Year Cost | | | | | -32 | 393 | 2449 | 5294 | 6390 | 3327 | 1292 | 19113 |
| Constant Year Cost | | | | | -31 | 377 | 2313 | 4900 | 5792 | 2954 | 1116 | 17421 |
| Present Value | | | | | -31 | 361 | 2122 | 4331 | 4937 | 2428 | 874 | 15022 |

Remarks: Data are PM cost estimates, not contractor proposals.

| Advance Procurement Requirements Analysis-Execution (P-10D) | | | | | | | | | | | | Date: | | | |
|--|--------------|------|------------------------------|----------------------------|--------------------------|--|------|------------------------------|----------------------------|--------------------------|----------------------------|---------------|------------------------------|------|------------------------------|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | | | P-1 Line Item Nomenclature / Weapon System: COMMAND & CONTROL VEHICLE (ADV PROC) (G84200) | | | | | | February 1999 | | | |
| (\$ in Millions) | | | | | | | | | | | | | | | |
| | PLT (mos) | 1998 | | | | | 1999 | | | | | 2000 | | 2001 | |
| | | Qty | Contract Forecast Date | Actual Contract Date | Total Cost Request | Actual Contract Cost | Qty | Contract Forecast Date | Actual Contract Date | Total Cost Request | Actual Contract Cost | Qty | Contract Forecast Date | Qty | Contract Forecast Date |
| End Item | | | | | | | | | | | | 12 | Dec 99 | 18 | Dec 00 |
| EOQ | | | | | | | | | | | | | | | |
| EOQ Basic Vehicle | 18 | | | | | | | | | | | | Dec 99 | | Dec 00 |
| EOQ Mission Module | 12 | | | | | | | | | | | | Dec 99 | | Dec 00 |
| Termination Liability | | | | | | | | | | | | | | | |
| Total Advance Procurement | | | | | 0.0 | 0.0 | | | | 0.0 | 0.0 | | | | |
| Description: Planned advanced procurement. No advance procurement history. | | | | | | | | | | | | | | | |

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E) | | | | | | | | | | | | | Date: February 1999 | | |
|---|---------------|-------|-----|-----|------|-----|--|-----|-----|-----|-----|-----|---------------------|----------------------|--|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | | | | P-1 Line Item Nomenclature / Weapon System: COMMAND & CONTROL VEHICLE (ADV PROC) (G84200) | | | | | | | | |
| (\$ 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 | | |
| FY 98 PY Termination Liability Schedule | | | | | | | | | | | | | | | |
| PY Expenditure | | | | | | | | | | | | | | | |
| FY 99 CY Termination Liability Schedule | | | | | | | | | | | | | | | |
| CY Expenditure | | | | | | | | | | | | | | | |
| FY 00 Termination Liab Sched | | | | | | | | | | | | | | | |
| FY 01 Termination Liab Sched | | | | | | | | | | | | | | | |
| <p>Narrative: There is no termination liability within this advance procurement line. EOQ requirements were calculated based on a percentage of the bill of material cost and sub-contractor component cost.</p> <p>“</p> | | | | | | | | | | | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 663.5 | 44.7 | 38.5 | 54.3 | 53.5 | 45.6 | 48.7 | 46.9 | 49.4 | 53.7 | 532.9 | 1631.7 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 663.5 | 44.7 | 38.5 | 54.3 | 53.5 | 45.6 | 48.7 | 46.9 | 49.4 | 53.7 | 532.9 | 1631.7 |
| Initial Spares | 3.5 | | | | | | | | | | | 3.5 |
| Total Proc Cost | 667.0 | 44.7 | 38.5 | 54.3 | 53.5 | 45.6 | 48.7 | 46.9 | 49.4 | 53.7 | 532.9 | 1635.2 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The M113 Family of Vehicles (FOV) consists of over 17,500 vehicles, 20 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, and Command Post Auxiliary Power Units (APU) for the fleet.

JUSTIFICATION:

- CREW CHEMICAL PROTECTION:** Provides the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes mounting provisions, blowers, filters, and air line heaters and hoses for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Installation will occur during vehicle conversions to the A3 configuration. Vehicle conversion will be done, in Department of the Army Master Priority List (DAMPL) sequence, at depot or contractor facilities.
- 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 Abrams and Bradley Fighting Vehicle System fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. Vehicle conversion to the A3 configuration will be done, in Department of the Army Master Priority List (DAMPL) sequence, at depot or contractor facilities..

Exhibit P-40C Budget Item Justification Sheet

Date

February 1999

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

Other Related Program Elements

3. DRIVER'S NIGHT VIEWER: The M19 image intensifier currently used on the M113 Family of Vehicles (FOV) has limited night vision. The AN/VVS-2(V)1A driver's night viewer has been adapted for use on the M113 FOV. The driver's night viewer enhances operational capability by providing capability for travelling in darkness and low visibility conditions equal to that on the M1 Abrams and Bradley Fighting Vehicle forces.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

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

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|--------------------------|-----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-------|---------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Crew Chemical Protection | | | | | | | | | | | |
| 1-91-05-4311 | Oper Capability | 1.3 | 0.8 | 0.8 | 0.6 | 0.8 | 0.6 | 0.7 | 0.7 | 10.8 | 17.1 |
| Block 1 | | | | | | | | | | | |
| 1-84-05-4026 | Oper Capability | 359.3 | 52.7 | 51.9 | 44.4 | 47.1 | 45.7 | 48.0 | 52.3 | 511.3 | 1,212.7 |
| Driver's Night Viewer | | | | | | | | | | | |
| 1-94-05-4463 | Oper Capability | 0.0 | 0.8 | 0.8 | 0.6 | 0.8 | 0.6 | 0.7 | 0.7 | 10.8 | 15.8 |
| Totals | | 360.6 | 54.3 | 53.5 | 45.6 | 48.7 | 46.9 | 49.4 | 53.7 | 532.9 | 1,245.6 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Crew Chemical Protection 1-91-05-4311

MODELS OF SYSTEMS AFFECTED: M113A3, M577A3, M1068A3

DESCRIPTION / JUSTIFICATION:

Provides the complete M8, M13 or M14 Nuclear, Biological and Chemical (NBC) System tailored for installation into each M113 variant. The installed system includes mounting provisions, blowers, filters, and air line heaters and hoses for use with crew issued ventilated face masks. The installed system permits vehicle operation in an NBC environment. Installation will occur during vehicle conversions to the A3 configuration. Vehicle conversion will be done, in Department of the Army Master Priority List (DAMPL) sequence, at depot or contractor facilities.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED ACCOMPLISHED

TDP Available:

February 92

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | 71 | 71 | 72 | 50 | 50 | 51 | 51 | 50 | 50 | 49 | 49 | 37 | 37 | 37 | 37 | 50 | 50 | 51 | 51 |
| Outputs | | | 71 | 71 | 72 | 50 | 50 | 51 | 51 | 50 | 50 | 49 | 49 | 37 | 37 | 37 | 37 | 50 | 50 | 51 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 34 | 34 | 35 | 35 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 47 | | | | | 1549 | 3023 |
| Outputs | 51 | 34 | 34 | 35 | 35 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 47 | | | | 1549 | 3023 |

METHOD OF IMPLEMENTATION: Depot/Contractor ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

Contract Dates: FY 1999 January 99 FY 2000 January 00 FY 2001 January 01

Delivery Date: FY 1999 April 99 FY 2000 April 00 FY 2001 April 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Crew Chemical Protection 1-91-05-4311

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|------|------|-------|------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 214 | | 202 | | 198 | | 148 | | 202 | | 138 | | 187 | | 185 | | 1549 | | 3023 | | |
| Installation Kits | | 1.0 | | 0.6 | | 0.6 | | 0.4 | | 0.7 | | 0.4 | | 0.6 | | 0.5 | | 9.1 | | 13.9 | |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | 0.3 | | | | | | | | | | | | | | | | | | 0.3 | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | 214 | 0.2 | | | | | | | | | | | | | | | | 214 | 0.2 |
| FY 1999 Eqpt -- Kits | | | | | 202 | 0.2 | | | | | | | | | | | | | | 202 | 0.2 |
| FY 2000 Eqpt -- Kits | | | | | | | 198 | 0.2 | | | | | | | | | | | | 198 | 0.2 |
| FY 2001 Eqpt -- Kits | | | | | | | | | 148 | 0.1 | | | | | | | | | | 148 | 0.1 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 202 | 0.2 | | | | | | | | 202 | 0.2 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 138 | 0.1 | | | | | | 138 | 0.1 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 187 | 0.2 | | | | 187 | 0.2 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 185 | 0.2 | | 185 | 0.2 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 1549 | 1.5 | | 1549 | 1.5 |
| Total Installment | | | 214 | 0.2 | 202 | 0.2 | 198 | 0.2 | 148 | 0.1 | 202 | 0.2 | 138 | 0.1 | 187 | 0.2 | 1734 | 1.7 | 3023 | 2.9 | |
| Total Procurement Cost | | 1.3 | | 0.8 | | 0.8 | | 0.6 | | 0.8 | | 0.6 | | 0.7 | | 0.7 | | 10.8 | | 17.1 | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Block 1 1-84-05-4026

MODELS OF SYSTEMS AFFECTED: M113A2, M577A2, M981, M1059, M1064, M1068, OSV, M58

DESCRIPTION / JUSTIFICATION:

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 Abrams and Bradley Fighting Vehicle System fleet. Internal spall suppression liners, external armored fuel tanks and external armor mounting provisions increase crew survivability. Vehicle conversion to the A3 configuration will be done, in Department of the Army Master Priority List (DAMPL) sequence, at depot or contractor facilities.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED ACCOMPLISHED

IPR Production Decision:

May 86

TDP Available:

June 86

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|
| | Totals | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | 1214 | 52 | 52 | 53 | 50 | 50 | 51 | 51 | 49 | 49 | 50 | 50 | 37 | 37 | 37 | 37 | 50 | 50 | 51 | 51 | 34 |
| Outputs | 975 | 99 | 99 | 99 | 99 | 50 | 50 | 51 | 51 | 49 | 49 | 50 | 50 | 37 | 37 | 37 | 37 | 50 | 50 | 51 | 51 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|---|---|---|-------------|--------|--|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | 34 | 35 | 35 | 46 | 47 | 47 | 47 | 46 | 46 | 46 | 47 | | | | | | | 1549 | | 4180 |
| Outputs | 34 | 34 | 35 | 35 | 46 | 47 | 47 | 47 | 46 | 46 | 46 | 47 | | | | | | 1549 | | 4180 |

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 7 Months

Contract Dates: FY 1999 January 99 FY 2000 January 00 FY 2001 January 01

Delivery Date: FY 1999 July 99 FY 2000 July 00 FY 2001 July 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Block 1 1-84-05-4026

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|-------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|------|-------|-------|--------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 2548 | | 202 | | 198 | | 148 | | 202 | | 138 | | 187 | | 185 | | 1549 | | 5357 | | |
| Installation Kits | | 275.8 | | 28.0 | | 26.7 | | 21.5 | | 27.8 | | 20.2 | | 27.8 | | 28.0 | | 273.5 | | 729.3 | |
| Installation Kits, Nonrecurring Equipment | | 3.4 | | | | | | | | | | | | | | | | | | 3.4 | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | 42.9 | | 4.8 | | 4.9 | | 5.0 | | 5.1 | | 5.2 | | 5.3 | | 5.4 | | 46.6 | | 125.2 | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | 5.0 | | | | | | | | | | | | | | | | | | 5.0 | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Pre-Conversion/Modification | | | | 11.5 | | 12.0 | | 10.0 | | 7.0 | | 11.9 | | 7.8 | | 10.1 | | 85.6 | | 155.9 | |
| FDT | | 1.2 | | 1.0 | | 1.0 | | 0.7 | | 1.0 | | 0.7 | | 0.9 | | 0.9 | | 0.8 | | 8.2 | |
| TPF | | 5.2 | | 1.8 | | 1.8 | | 1.5 | | 1.8 | | 1.5 | | 1.8 | | 1.7 | | 7.7 | | 24.8 | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 1157 | 25.8 | 214 | 5.6 | | | | | | | | | | | | | | | | 1371 | 31.4 |
| FY 1999 Eqpt -- Kits | | | | | 202 | 5.5 | | | | | | | | | | | | | | 202 | 5.5 |
| FY 2000 Eqpt -- Kits | | | | | | | 198 | 5.7 | | | | | | | | | | | | 198 | 5.7 |
| FY 2001 Eqpt -- Kits | | | | | | | | | 148 | 4.4 | | | | | | | | | | 148 | 4.4 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 202 | 6.2 | | | | | | | | 202 | 6.2 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 138 | 4.4 | | | | | | 138 | 4.4 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 187 | 6.2 | | | | 187 | 6.2 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 185 | 11.1 | | 185 | 11.1 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 1549 | 86.0 | | 1549 | 86.0 |
| Total Installment | 1157 | 25.8 | 214 | 5.6 | 202 | 5.5 | 198 | 5.7 | 148 | 4.4 | 202 | 6.2 | 138 | 4.4 | 187 | 6.2 | 1734 | 97.1 | 4180 | 160.9 | |
| Total Procurement Cost | | 359.3 | | 52.7 | | 51.9 | | 44.4 | | 47.1 | | 45.7 | | 48.0 | | 52.3 | | 511.3 | | 1212.7 | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Driver's Night Viewer 1-94-05-4463

MODELS OF SYSTEMS AFFECTED: M113 Family of Vehicles

DESCRIPTION / JUSTIFICATION:

The M19 image intensifier currently used on the M113 Family of Vehicles (FOV) has limited night vision. The AN/VVS-2(V)1A driver's night viewer has been adapted for use on the M113 FOV. The driver's night viewer enhances operational capability by providing capability for travelling in darkness and low visibility conditions equal to that on the M1 Abrams and Bradley Fighting Vehicle System forces.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED ACCOMPLISHED

TDP Available: September 94

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | 50 | 50 | 51 | 51 | 50 | 50 | 49 | 49 | 37 | 37 | 37 | 37 | 50 | 50 | 51 | 51 |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 34 | 34 | 35 | 35 | 47 | 47 | 47 | 46 | 46 | 46 | 47 | | | | | | 1549 | 2809 |
| Outputs | 51 | 34 | 34 | 35 | 35 | 47 | 47 | 47 | 46 | 46 | 46 | 46 | 47 | | | | 1549 | 2809 |

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 24 Months

PRODUCTION LEADTIME: 3 Months

Contract Dates: FY 1999 January 99 FY 2000 January 00 FY 2001 January 01

Delivery Date: FY 1999 April 99 FY 2000 April 00 FY 2001 April 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Driver's Night Viewer 1-94-05-4463

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|------|------|-------|----|----------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | 202 | | 198 | | 148 | | 202 | | 138 | | 187 | | 185 | | 1549 | 9.1 | 2809 | | 13.0 |
| Installation Kits | | | | 0.7 | | 0.6 | | 0.4 | | 0.7 | | 0.4 | | 0.6 | | 0.5 | | | | | |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | 0.1 | | | | | | | | | | | | | | | | | 0.1 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | 202 0.2 |
| FY 1999 Eqpt -- Kits | | | | | 202 | 0.2 | | | | | | | | | | | | | | | 198 0.2 |
| FY 2000 Eqpt -- Kits | | | | | | | 198 | 0.2 | | | | | | | | | | | | | 148 0.1 |
| FY 2001 Eqpt -- kits | | | | | | | | | 148 | 0.1 | | | | | | | | | | | 202 0.2 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 202 | 0.2 | | | | | | | | | 138 0.1 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 138 | 0.1 | | | | | | | 187 0.2 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 187 | 0.2 | | | | | 185 0.2 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 185 | 0.2 | | | 1549 1.5 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | 1549 1.5 |
| Total Installment | | | | | 202 | 0.2 | 198 | 0.2 | 148 | 0.1 | 202 | 0.2 | 138 | 0.1 | 187 | 0.2 | 1734 | 1.7 | 2809 | | 2.7 |
| Total Procurement Cost | | | | 0.8 | | 0.8 | | 0.6 | | 0.8 | | 0.6 | | 0.7 | | 0.7 | | 10.8 | | | 15.8 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | 19 | 27 | 26 | 33 | 40 | 64 | 52 | 48 | | 309 |
| Gross Cost | 0.0 | 0.0 | 15.2 | 24.7 | 27.3 | 31.1 | 35.9 | 50.9 | 40.2 | 38.6 | 15.0 | 279.0 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 15.2 | 24.7 | 27.3 | 31.1 | 35.9 | 50.9 | 40.2 | 38.6 | 15.0 | 279.0 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 15.2 | 24.7 | 27.3 | 31.1 | 35.9 | 50.9 | 40.2 | 38.6 | 15.0 | 279.0 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | .8 | .9 | 1.1 | .9 | .9 | .8 | .8 | .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.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: FIST VEHICLE (MOD) (GZ2300) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | | 11298 | 19 | 595 | 9394 | 27 | 348 | 15606 | 26 | 600 | 17399 | 33 | 527 |
| 2. Pre-Mod Depot Maintenance | | | | | | 5859 | 21 | 279 | 6140 | 26 | 236 | 7922 | 33 | 240 |
| SUBTOTAL | | | 11298 | | | 15253 | | | 21746 | | | 25321 | | |
| Non Recurring Production | | | | | | | | | | | | | | |
| 3. Engineering Contractor | | | 2241 | | | 1897 | | | 1522 | | | 1496 | | |
| 4. Engineering Government | | | 1098 | | | 929 | | | 814 | | | 828 | | |
| 5. Program Management Administration | | | 329 | | | 491 | | | 421 | | | 429 | | |
| 6. Reimbursable Matrix Support | | | 271 | | | 188 | | | 169 | | | 171 | | |
| 7. Fielding | | | | | | 1358 | | | 2666 | | | 2858 | | |
| 8. Test & Evaluation | | | | | | 540 | | | | | | | | |
| 9. TMDE (DSETS) | | | | | | 4000 | | | | | | | | |
| SUBTOTAL | | | 3939 | | | 9403 | | | 5592 | | | 5782 | | |
| TOTAL | | | 15237 | | | 24656 | | | 27338 | | | 31103 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| 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: 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 | | | | | | | | | | |
| FY 98 | UDLP, York, PA | SS/FFP | USATACOM, Warren, MI | Dec-97 | May-99 | 19 | 595 | | | |
| FY 99 | UDLP, York, PA | SS/FFP | USATACOM, Warren, MI | Nov-98 | May-00 | 27 | 348 | | | |
| FY 00 | UDLP, York, PA | SS/FFP | USATACOM, Warren, MI | Nov-99 | Jan-01 | 26 | 600 | | | |
| FY 01 | UDLP, York, PA | SS/FFP | USATACOM, Warren, MI | Nov-00 | Jan-02 | 33 | 527 | | | |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 681.8 | 113.6 | 58.6 | 75.3 | 7.1 | 26.6 | 23.6 | 48.3 | 59.2 | 60.0 | 1.4 | 1155.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 681.8 | 113.6 | 58.6 | 75.3 | 7.1 | 26.6 | 23.6 | 48.3 | 59.2 | 60.0 | 1.4 | 1155.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 681.8 | 113.6 | 58.6 | 75.3 | 7.1 | 26.6 | 23.6 | 48.3 | 59.2 | 60.0 | 1.4 | 1155.5 |
| 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 5 ECPs which will correct deficiencies identified in Operation Desert Storm and include: Laser Range Finder, Position Navigation System, Equipment Restow Improvement, Combat Identification System, and Drivers Vision Enhancer. 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 Vehicle Intercommunications System, the Digital Electronic Control Assembly, and Armor Tiles. The A2 ODS Applique(+) modification will integrate Bradley Fighting Vehicles with the Army's Applique computer system to improve situational awareness. The Battlefield Combat Identification System will provide positive identification of friendly ground vehicles to minimize battlefield fratricide. 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
February 1999

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 Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|--|------------------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| A1-A2 Conversion | | | | | | | | | | | |
| 1-84-05-4038 | Oper. Capability | 381.9 | 26.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 408.8 |
| A2 ODS Mods | | | | | | | | | | | |
| 1-92-05-4404 | Oper. Capability | 149.8 | 14.3 | 1.7 | 1.3 | 6.9 | 9.1 | 1.1 | 0.0 | 0.0 | 184.2 |
| Transmission Electronic Controller (TEC) | | | | | | | | | | | |
| 1-90-05-4282 | Oper. Capability | 13.5 | 3.2 | 0.0 | 0.0 | 0.9 | 1.0 | 0.0 | 0.0 | 0.0 | 18.6 |
| Vehicle Intercom System | | | | | | | | | | | |
| 1-90-05-4284 | Oper. Capability | 13.1 | 0.7 | 0.0 | 0.0 | 1.1 | 1.2 | 0.0 | 0.0 | 0.0 | 16.1 |
| DECA | | | | | | | | | | | |
| 1-93-05-4441 | Oper. Capability | 17.5 | 2.6 | 0.0 | 0.0 | 1.4 | 1.5 | 0.0 | 0.0 | 0.0 | 23.1 |
| HALON Replacement | | | | | | | | | | | |
| 1-92-05-4422 | Legisl. Compliance | 8.5 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 10.1 |
| A2 ODS Applique | | | | | | | | | | | |
| 1-98-05-4539 | Oper. Capability | 0.0 | 10.9 | 2.7 | 16.6 | 8.6 | 15.2 | 12.0 | 11.9 | 0.0 | 78.0 |
| Battlefield Combat Identification System | | | | | | | | | | | |
| 1-98-05-4546 | Operational Capability | 0.0 | 0.0 | 2.7 | 8.7 | 4.6 | 0.6 | 0.0 | 0.0 | 0.0 | 16.5 |
| A2 High Payoff Improvements (No P3a Set) | | | | | | | | | | | |
| 1-98-05-4550 | Operational Capability | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 46.2 | 48.1 | 0.0 | 114.0 |
| Armor tiles | | | | | | | | | | | |
| 1-84-05-4038 | Oper. Capability | 72.1 | 16.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 88.6 |
| Totals | | 656.5 | 75.3 | 7.1 | 26.6 | 23.6 | 48.3 | 59.2 | 60.0 | 1.4 | 958.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: A1-A2 Conversion 1-84-05-4038

MODELS OF SYSTEMS AFFECTED: M2A1 (IFV) / M3A1 (CFV)

DESCRIPTION / JUSTIFICATION:

The BFVS conversion effort converts the A1 configuration to an A2 configuration.
 The conversion effort includes:
 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.
 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:

PLANNED

ACCOMPLISHED

| | | |
|--|------|------|
| 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 |
| | 3Q89 | 3Q89 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|--|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Inputs | 1294 | 14 | 42 | 8 | | | | | | | | | | | | | | | | | |
| Outputs | 1283 | 11 | 14 | 42 | 8 | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 1358 |
| Outputs | | | | | | | | | | | | | | | | | | 1358 |

METHOD OF IMPLEMENTATION: Depot Conversion **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 12 Months
Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 N/A
Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|--------------------------------|----------------------|-------|---------|------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| 600 HP Engine | 1358 | 47.5 | | | | | | | | | | | | | | | | | 1358 | 47.5 | |
| 500-3 Transmission | 1358 | 39.2 | | | | | | | | | | | | | | | | | 1358 | 39.2 | |
| High Survivability kits | 1358 | 191.0 | | | | | | | | | | | | | | | | | 1358 | 191.0 | |
| Engineering Change Orders | | 1.6 | | | | | | | | | | | | | | | | | | | 1.6 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | 2.8 | | | | | | | | | | | | | | | | | | | 2.8 |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Pre-mod Depot Maintenance | | | 75 | 17.2 | | | | | | | | | | | | | | | 75 | 17.2 | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 1283 | 99.9 | 75 | 9.8 | | | | | | | | | | | | | | | 1358 | 109.6 | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 1283 | 99.9 | 75 | 9.8 | | | | | | | | | | | | | | | 1358 | 109.6 | |
| Total Procurement Cost | | 381.9 | | 26.9 | | | | | | | | | | | | | | | | | 408.8 |

INDIVIDUAL MODIFICATION

Date February 1999

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>PLANNED</u> | <u>ACCOMPLISHED</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 | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|----|----|----|---------|---|---|---|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Inputs | 922 | 98 | 98 | 98 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 | 20 |
| Outputs | 823 | 99 | 98 | 98 | 98 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | 19 | 19 | 19 | | | | | | | | | | | | | | | | | | 1570 |
| Outputs | 20 | 19 | 19 | 19 | | | | | | | | | | | | | | | | | 1570 |

METHOD OF IMPLEMENTATION: Contr/Depot/Field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 Dec 98 FY 2000 N/A FY 2001 N/A

Delivery Date: FY 1999 Dec 99 FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|--|----------------------|-------|---------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|-----|----|-------|------|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | 1320 | 136.2 | 137 | 11.7 | | | | | 56 | 6.3 | 57 | 7.9 | | | | | | | | 1570 | 162.0 |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | 2.0 | | | | | | | | | | | | | | | | | | | 2.0 |
| Engineering Change Orders | | 5.8 | | | | | | | | | | | | | | | | | | | 5.8 |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| 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. | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 695 | 5.9 | 75 | 2.0 | | | | | | | | | | | | | | | | 770 | 7.9 |
| FY 1999 Eqpt -- Kits | | | 26 | 0.6 | 66 | 1.7 | 45 | 1.3 | | | | | | | | | | | | 137 | 3.7 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | 25 | 0.6 | 31 | 0.8 | | | | | | | | 56 | 1.4 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | 16 | 0.4 | 41 | 1.1 | | | | | | 57 | 1.5 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 695 | 5.9 | 101 | 2.6 | 66 | 1.7 | 45 | 1.3 | 25 | 0.6 | 47 | 1.2 | 41 | 1.1 | | | | | | 1020 | 14.5 |
| Total Procurement Cost | | 149.8 | | 14.3 | | 1.7 | | 1.3 | | 6.9 | | 9.1 | | 1.1 | | | | | | | 184.2 |

INDIVIDUAL MODIFICATION

Date February 1999

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

MODELS OF SYSTEMS AFFECTED: M2A2/M3A2

DESCRIPTION / JUSTIFICATION:

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:

IPR Production Decision: 2Q94

TDP Available: 2Q94

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|----|----|----|---------|---|---|---|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Inputs | 483 | 98 | 98 | 98 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 | 20 |
| Outputs | 384 | 99 | 98 | 98 | 98 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | 19 | 19 | 19 | | | | | | | | | | | | | | | | | | 1131 |
| Outputs | 20 | 19 | 19 | 19 | | | | | | | | | | | | | | | | | 1131 |

METHOD OF IMPLEMENTATION: Contr/Depot/Field ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months

Contract Dates: FY 1999 Jan 99 FY 2000 N/A FY 2001 N/A

Delivery Date: FY 1999 Aug 99 FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|----------------------|------|---------|-----|---------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 820 | 13.5 | 199 | 3.2 | | | | | 55 | 0.9 | 57 | 1.0 | | | | | | | | 1131 | 18.6 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| 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 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 13.5 | | 3.2 | | | | | | 0.9 | | 1.0 | | | | | | | | | 18.6 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Vehicle Intercom System 1-90-05-4284

MODELS OF SYSTEMS AFFECTED: A2 ODS M2/M3

DESCRIPTION / JUSTIFICATION:

The VIS system is a replacement for the AN/VIC-1 intercom system. It is a digital intercom system which provides internal communications as well as access to the vehicle radios. This is a non-developmental item to be applied to the A2 ODS vehicles.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | |
|--|------|------|
| 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 | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|----|----|----|---------|---|---|---|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Inputs | 922 | 98 | 98 | 98 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 | 20 |
| Outputs | 823 | 99 | 98 | 98 | 98 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | 19 | 19 | 19 | | | | | | | | | | | | | | | | | | 1570 |
| Outputs | 20 | 19 | 19 | 19 | | | | | | | | | | | | | | | | | 1570 |

METHOD OF IMPLEMENTATION: contractor/Depot **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 6 Months

Contract Dates: FY 1999 Mar 99 FY 2000 N/A FY 2001 N/A

Delivery Date: FY 1999 Sep 99 FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|----------------------|------|---------|-----|---------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|-----------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | 964 | 13.1 | 35 | 0.7 | | | | | 55 | 1.1 | 57 | 1.2 | | | | | | | | | 1111 16.1 |
| 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 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 13.1 | | 0.7 | | | | | | 1.1 | | 1.2 | | | | | | | | | 16.1 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: DECA 1-93-05-4441

MODELS OF SYSTEMS AFFECTED: M2A2/M3A2

DESCRIPTION / JUSTIFICATION:

The DECA is the microprocessor based controller of the turret drive system. It transfers signals from crew and sensor inputs to the appropriate 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:

PLANNED

ACCOMPLISHED

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 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|----|----|----|---------|---|---|---|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Inputs | 274 | 91 | 91 | 91 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 | 20 |
| Outputs | 183 | 91 | 91 | 91 | 91 | 50 | 50 | 49 | 7 | 8 | 8 | 8 | 9 | 15 | 14 | 14 | 14 | 8 | 8 | 8 | 7 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | 19 | 19 | 19 | | | | | | | | | | | | | | | | | | 901 |
| Outputs | 20 | 19 | 19 | 19 | | | | | | | | | | | | | | | | | 901 |

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

24 Months

PRODUCTION LEADTIME:

24 Months

Contract Dates:

FY 1999

Jan 99

FY 2000

N/A

FY 2001

N/A

Delivery Date:

FY 1999

Sep 99

FY 2000

N/A

FY 2001

N/A

INDIVIDUAL MODIFICATION

Date February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|----------------------|------|---------|-----|---------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|-----|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | 683 | 17.5 | 106 | 2.6 | | | | | 55 | 1.4 | 57 | 1.5 | | | | | | | | 901 | 23.1 |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| 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 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 17.5 | | 2.6 | | | | | | 1.4 | | 1.5 | | | | | | | | | 23.1 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: HALON Replacement 1-92-05-4422

MODELS OF SYSTEMS AFFECTED: Bradley Fighting Vehicle System

DESCRIPTION / JUSTIFICATION:

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:

PLANNED

ACCOMPLISHED

| | | |
|--|------|------|
| 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 | 1Q98 |
| Approve ECP: | 2Q98 | 3Q98 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|-----|-----|-----|---------|-----|------|-----|---------|----|----|----|---------|----|----|----|---------|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Totals | | | | | | | | | | | | | | | | | | | | | |
| Inputs | 107 | 542 | 646 | 955 | 902 | 365 | 1087 | 628 | 46 | 82 | 83 | 82 | 84 | 91 | 89 | 89 | 89 | 112 | 111 | 111 | 110 |
| Outputs | 107 | 542 | 646 | 955 | 902 | 365 | 1087 | 628 | 46 | 82 | 83 | 82 | 84 | 91 | 89 | 89 | 89 | 112 | 111 | 111 | 110 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|-----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | 123 | 122 | 45 | 19 | | | | | | | | | | | | | | | | | 6720 |
| Outputs | 123 | 122 | 45 | 19 | | | | | | | | | | | | | | | | | 6720 |

METHOD OF IMPLEMENTATION: Contr/Depot ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 6 Months
 Contract Dates: FY 1999 Jan 99 FY 2000 FY 2001
 Delivery Date: FY 1999 Jul 99 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|------|-----|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | 3902 | 2.3 | | | | | | | | | | | | | | | 2818 | 1.1 | 6720 | 3.4 | |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | 0.1 | | | | | | | | | | | | | | | | | | | 0.1 |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | 3.7 | | | | | | | | | | | | | | | | | | | 3.7 |
| 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 1998 & Prior Eqpt -- Kits | 107 | 2.3 | 2489 | 0.2 | 1306 | | | | | | | | | | | | | | | 3902 | 2.5 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 510 | 0.3 | 510 | 0.3 | |
| Total Installment | 107 | 2.3 | 2489 | 0.2 | 1306 | | | | | | | | | | | | 510 | 0.3 | 4412 | 2.8 | |
| Total Procurement Cost | | 8.5 | | 0.2 | | | | | | | | | | | | | | 1.4 | | | 10.1 |

INDIVIDUAL MODIFICATION

Date February 1999

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

MODELS OF SYSTEMS AFFECTED: M2A2ODS, M6A1 Linebacker, M7A1 BFIST

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 defilade" 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 | 8/98 |
| IOT&E: | 10/99 | |
| MS III | 11/99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | | | | | 31 | 58 | 60 | 60 | 65 | 66 | 66 | 66 | 35 | 35 | 35 | 36 | 62 | 62 |
| Outputs | | | | | | | | 31 | 58 | 60 | 60 | 65 | 66 | 66 | 66 | 35 | 35 | 35 | 36 | 62 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 63 | 63 | 49 | 50 | 50 | 50 | 50 | 49 | 49 | 49 | | | | | | | | 1259 |
| Outputs | 62 | 63 | 63 | 49 | 50 | 50 | 50 | 50 | 49 | 49 | 49 | | | | | | | 1259 |

METHOD OF IMPLEMENTATION: Contractor Applied ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 Jan 99 FY 2000 Jun 00 FY 2001 Jun 01

Delivery Date: FY 1999 Jun 00 FY 2000 Jun 01 FY 2001 Jun 02

INDIVIDUAL MODIFICATION

Date February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|----|---------|------|---------|-----|---------|------|---------|-----|---------|------|---------|------|---------|------|-----|----|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| ODS Installation A-Kits | | | 46 | 2.9 | | | 254 | 16.6 | 140 | 8.6 | 251 | 15.2 | 201 | 12.0 | 199 | 11.9 | | | 1091 | 67.2 | |
| ODS Installation B-Kits | | | | | | 185 | 2.7 | | | | | | | | | | | | 185 | 2.7 | |
| ODS Nonrecurring | | | 126 | 0.8 | | | | | | | | | | | | | | | 126 | 0.8 | |
| A3 Installation Kits | | | | 4.0 | | | | | | | | | | | | | | | | 4.0 | |
| A3 Nonrecurring | | | | 0.8 | | | | | | | | | | | | | | | | 0.8 | |
| IOTE Refurbishment | | | | 2.0 | | | | | | | | | | | | | | | | 2.0 | |
| Data | | | | 0.5 | | | | | | | | | | | | | | | | 0.5 | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| NOTE: Application costs are included in procurement unit cost | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | 10.9 | | 2.7 | | 16.6 | | 8.6 | | 15.2 | | 12.0 | | 11.9 | | | | | 78.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Battlefield Combat Identification System 1-98-05-4546

MODELS OF SYSTEMS AFFECTED: M2A2ODS

DESCRIPTION / JUSTIFICATION:

The Battlefield Combat Identification System (BCIS) is a millimeter wave, question and answer system that will provide positive identification of friendly ground vehicles to minimize battlefield fratricide and enhance combat effectiveness. The BCIS is a designated Army Horizontal Technology Integration (HTI) initiative.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

| | |
|-------------|------|
| MSII | 4Q93 |
| CDR | 2Q94 |
| PPQT/LUT | 1Q95 |
| TF XXI Demo | 3Q97 |
| NATO Demo | 4Q97 |
| LRIP IPR | 2Q99 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | | | | | | | 15 | 15 | 16 | 17 | 61 | 62 | 62 | 61 | 27 | 27 | 26 | 44 |
| Outputs | | | | | | | | | 15 | 15 | 16 | 17 | 61 | 62 | 62 | 61 | 27 | 27 | 26 | 44 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 433 |
| Outputs | | | | | | | | | | | | | | | | | | | | 433 |

METHOD OF IMPLEMENTATION: Cntr/Depot **ADMINISTRATIVE LEADTIME:** 4 Months **PRODUCTION LEADTIME:** 11 Months

Contract Dates: FY 1999 N/A FY 2000 Oct 00 FY 2001 Oct 01

Delivery Date: FY 1999 N/A FY 2000 Oct 01 FY 2001 Oct 02

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Battlefield Combat Identification System 1-98-05-4546

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|-----|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | | | | | 63 | 2.7 | 246 | 8.6 | 106 | 4.2 | 18 | 0.5 | | | | | | | | 433 | 15.9 |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | 63 | 0.1 | | | | | | | | | | | | 63 | 0.1 |
| FY 2002 Eqpt -- kits | | | | | | | | | 246 | 0.4 | | | | | | | | | | 246 | 0.4 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | 124 | 0.2 | | | | | | | | 124 | 0.2 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | 63 | 0.1 | 246 | 0.4 | 124 | 0.2 | | | | | | | | 433 | 0.6 |
| Total Procurement Cost | | | | | | | 2.7 | 8.7 | | 4.6 | | 0.6 | | | | | | | | | 16.5 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Armor tiles 1-84-05-4038

MODELS OF SYSTEMS AFFECTED: M2A2 (IFV) / M3A2 (CFV)

DESCRIPTION / JUSTIFICATION:

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> |
| Critical Design Review: | 3Q90 | 3Q90 |
| Contractor Test and Evaluation: | N/A | |
| Development Test and Evaluation: | N/A | |
| Initial Operational Test and Evaluation: | N/A | |
| IPR Production Decision: | 2Q92 | 2Q93 |
| TDP Available | N/A | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Troop Installed **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 6 Months
Contract Dates: FY 1999 Feb 99 FY 2000 FY 2001
Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|--|----------------------|------|---------|------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|----------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 4.0 | | | | | | | | | | | | | | | | | | | 4.0 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | 246 | 56.5 | 55 | 14.0 | | | | | | | | | | | | | | | | | 301 70.5 |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring Engineering Change Orders Data | | 0.5 | | | | | | | | | | | | | | | | | | | 0.5 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | 15.1 | | 2.5 | | | | | | | | | | | | | | | | | 17.6 |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 72.1 | | 16.5 | | | | | | | | | | | | | | | | | 88.6 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 1207.4 | 95.4 | 74.0 | 11.3 | 6.3 | 8.1 | 0.4 | 0.3 | 0.0 | 0.0 | 5.8 | 1408.9 |
| Less PY Adv Proc | 16.3 | | | | | | | | | | | 16.3 |
| Plus CY Adv Proc | 16.3 | | | | | | | | | | | 16.3 |
| Net Proc (P-1) | 1207.4 | 95.4 | 74.0 | 11.3 | 6.3 | 8.1 | 0.4 | 0.3 | 0.0 | 0.0 | 5.8 | 1408.9 |
| Initial Spares | 5.9 | 6.4 | 0.7 | | | | | | | | | 13.0 |
| Total Proc Cost | 1213.3 | 101.8 | 74.7 | 11.3 | 6.3 | 8.1 | 0.4 | 0.3 | 0.0 | 0.0 | 5.8 | 1421.9 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION:
 Funds the procurement of approved modifications to the 155MM Self-Propelled Howitzer. The fiscal program identified herein completes production and fielding of the M109A6 Paladin Howitzer. (See detailed description/justification on following exhibit P-3A's).

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 US Howitzer is currently in the full scale production phase and has been named the M109A6 Paladin. The US/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 FY1993-1998 programs.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. P-1 Item Nomenclature
 PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles 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 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Howitzer Improvement Program | | | | | | | | | | | |
| 1-81-05-1002 | Unclassified | 1,373.4 | 11.3 | 6.2 | 8.1 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 1,399.6 |
| Chlorofluorocarbon (CFC Elimination) | | | | | | | | | | | |
| 1-96-05-1003 | Unclassified | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 9.2 |
| Totals | | 1,376.8 | 11.3 | 6.2 | 8.1 | 0.4 | 0.3 | 0.0 | 0.0 | 5.8 | 1,408.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Howitzer Improvement Program 1-81-05-1002

MODELS OF SYSTEMS AFFECTED: Howitzer, MED SP FT 155MM M109 Ser (MOD) (MultiYear Procurement (MYP))

DESCRIPTION / JUSTIFICATION:

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 Arsenals, respectively, are shipped to the contractor for final integration, assembly, and acceptance testing. The acquisition strategy for the FY89/90-92 called for sole source contracts. An FY93-96 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

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 1999, successfully fielded 711 M109A6 Howitzers and all associated items of equipment. All major development milestones for the M109A6 Paladin Howitzer have been successfully completed.

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |
| | 950 | | | | | | | | | | | | | | | | | | | |
| | 845 | 45 | 37 | 23 | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 950 |
| Outputs | | | | | | | | | | | | | | | | | | 950 |

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 24 Months

PRODUCTION LEADTIME: 24 Months

Contract Dates: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date
 Delivery Date: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|------------------------------|----------------------|--------|---------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|----------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 149.4 | | | | | | | | | | | | | | | | | | | 149.4 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 950 | | | | | | | | | | | | | | | | | | | | 950 |
| Equipment | | 768.2 | | 0.5 | | 4.8 | | 5.4 | | 0.1 | | | | | | | | | | | 779.0 |
| Equipment, Nonrecurring | | 242.6 | | | | | | | | | | | | | | | | | | | 242.6 |
| Engineering Change Orders | | 117.0 | | | | | | | | | | | | | | | | | | | 117.0 |
| Matrix Personnel Support | | 87.5 | | 3.5 | | | | | | | | | | | | | | | | | 91.0 |
| Data | | 13.1 | | | | | | | | | | | | | | | | | | | 13.1 |
| Training Equipment | | 14.1 | | | | | | | | | | | | | | | | | | | 14.1 |
| Vehicular Intercom System | | 10.2 | | | | | | | | | | | | | | | | | | | 10.2 |
| Other | | 5.0 | | | | | | | | | | | | | | | | | | | 5.0 |
| Project Management Admin | | 15.7 | | 2.8 | | 1.0 | | 0.7 | | | | | | | | | | | | | 20.2 |
| Fielding | | 26.2 | | 4.5 | | 0.4 | | 2.0 | | | | | | | | | | | | | 33.1 |
| Battlefield Combat ID System | | | | | | | | | | 0.3 | | 0.3 | | | | | | | | | 0.5 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 950 | 73.8 | | | | | | | | | | | | | | | | | | | 950 73.8 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 950 | 73.8 | | | | | | | | | | | | | | | | | | | 950 73.8 |
| Total Procurement Cost | | 1373.4 | | 11.3 | | 6.2 | | 8.1 | | 0.4 | | 0.3 | | | | | | | | | 1399.6 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Chlorofluorocarbon (CFC Elimination) 1-96-05-1003

MODELS OF SYSTEMS AFFECTED: M109A6 Paladin Howitzer

DESCRIPTION / JUSTIFICATION:

References: DOD Directive 6050.0; Policy Letter 200.90-1; AMC Regulation 70-68; Montreal Protocol of 1986.
 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Request for Proposal - 3QFY97
 Vendor Selected - 1QFY98
 Joint Government/Contractor Test and Evaluation - 3QFY98 and ongoing
 IPR Production Decision/Contract Modification - Planned 2QFY99
 TDP Available - Planned 2QFY99

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|-----|-----|---------|-----|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | 20 | 105 | 120 | 120 | | | | | | | | | | | | | | | |
| Outputs | | 6 | 66 | 84 | 101 | 108 | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 365 |
| Outputs | | | | | | | | | | | | | | | | | | 365 |

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 5 Months
 Contract Dates: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date
 Delivery Date: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Chlorofluorocarbon (CFC Elimination) 1-96-05-1003

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|------------------------------|----------------------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|-----|-------|-----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 365 | | | | | | | | | | | | | | | | | 585 | | 950 | |
| Hardware | | 1.8 | | | | | | | | | | | | | | | | | 4.3 | | 6.1 |
| Testing | | 0.6 | | | | | | | | | | | | | | | | | | | 0.6 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 365 | 1.0 | | | | | | | | | | | | | | | | | | 365 | 1.0 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | 585 | 1.5 | 585 | 1.5 |
| Total Installment | 365 | 1.0 | | | | | | | | | | | | | | | | 585 | 1.5 | 950 | 2.5 |
| Total Procurement Cost | | 3.4 | | | | | | | | | | | | | | | | | 5.8 | | 9.2 |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 73.0 | 23.5 | 1.8 | 3.1 | 0.2 | 0.1 | 18.5 | 0.3 | 0.0 | 0.0 | 4.6 | 125.2 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 73.0 | 23.5 | 1.8 | 3.1 | 0.2 | 0.1 | 18.5 | 0.3 | 0.0 | 0.0 | 4.6 | 125.2 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 73.0 | 23.5 | 1.8 | 3.1 | 0.2 | 0.1 | 18.5 | 0.3 | 0.0 | 0.0 | 4.6 | 125.2 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

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's).

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. 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

| Description | | Fiscal Years | | | | | | | | | |
|---------------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| FAASV Materiel Change (A2 Conversion) | | | | | | | | | | | |
| 1-93-05-4457 | Unclassified | 94.5 | 2.8 | 0.2 | 0.1 | 18.5 | 0.3 | 0.0 | 0.0 | 0.0 | 116.4 |
| FAASV Halon Replacement | | | | | | | | | | | |
| 1-94-05-4477 | Unclassified | 3.8 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 8.7 |
| Totals | | 98.3 | 3.1 | 0.2 | 0.1 | 18.5 | 0.3 | 0.0 | 0.0 | 4.6 | 125.1 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: FAASV Materiel Change (A2 Conversion) 1-93-05-4457

MODELS OF SYSTEMS AFFECTED: FAASV M992A2

DESCRIPTION / JUSTIFICATION:

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 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 in FY99 pays the Inspect and Repair Only As Necessary (IROAN) upgrade effort for the completion of the European Conversion Program.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review - 1QFY91 M992A2 First Unit Equipped - 1QFY95
 Critical Design Review - 4QFY91
 Contractor Test and Evaluation - 2QFY93
 IPR Production Design - 3QFY93
 TDP Available - 3QFY93
 M992A2 First Delivery - 3QFY93

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|----|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | 757 | 32 | | | | | | | | | | | | | | | | | | |
| Outputs | 732 | 28 | 22 | 7 | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 789 |
| Outputs | | | | | | | | | | | | | | | | | | 789 |

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 24 Months

PRODUCTION LEADTIME: 24 Months

Contract Dates: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date
 Delivery Date: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): FAASV Materiel Change (A2 Conversion) 1-93-05-4457

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|------------------------------|----------------------|------|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 789 | | | | | | | | | | | | | | | | | | | 789 | |
| Installation Kits | | 44.3 | | | | | | | | | | | | | | | | | | | 44.3 |
| Engineering Change Orders | | 10.3 | | | | | | | | | | | | | | | | | | | 10.3 |
| Project Mgmt Admin | | 1.1 | | | | 0.1 | | | | | | | | | | | | | | | 1.2 |
| Testing | | 0.1 | | | | | | | | | | | | | | | | | | | 0.1 |
| Vehicular Intercom System | | 8.6 | | | | | | | | | | | | | | | | | | | 8.6 |
| Fielding | | 4.7 | | 0.2 | | | | | | | | | | | | | | | | | 4.9 |
| Depot Maint Pre Modification | | | | 2.6 | | | | | | | | | | | | | | | | | 2.6 |
| Auxillary Power Unit | | | | | | | | | 18.4 | | | | | | | | | | | | 18.4 |
| Battlefield Combat ID System | | | | | | 0.1 | | 0.1 | 0.2 | | 0.3 | | | | | | | | | | 0.6 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 789 | 25.4 | | | | | | | | | | | | | | | | | | 789 | 25.4 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 789 | 25.4 | | | | | | | | | | | | | | | | | | 789 | 25.4 |
| Total Procurement Cost | | 94.5 | | 2.8 | | 0.2 | | 0.1 | 18.5 | | 0.3 | | | | | | | | | | 116.4 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: FAASV Halon Replacement 1-94-05-4477

MODELS OF SYSTEMS AFFECTED: FAASV M992A2

DESCRIPTION / JUSTIFICATION:

References: DOD Directive 6050.0; DA Policy Letter 200.0.1; AMC Regulation 70-68; Montreal Protocol of 1986 and Presidential Directive.

These references mandate the replacement of Halon charged fire suppression systems to prevent ozone depletion. A common replacement agent engine compartment fire extinguishing system is required on 921 FAASV systems. FY97-99 funds have been appropriated to initiate the first phase of the conversion process by replacing the fire suppression distribution system in the FAASV engine compartment with one suitable to both Halon and the selected alternate agent.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

- Preliminary Design Review - 1QFY98
- Critical Design Review - 1QFY98
- Joint Government Contractor Test and Evaluation - 1QFY98
- IPR Production Decision - 4QFY98
- TDP Available - 4QFY98
- First Unit Installed - 2QFY99

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|----|-----|---------|-----|-----|-----|---------|-----|----|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | 91 | 98 | 108 | 108 | 108 | 108 | 108 | 108 | 84 | | | | | | | | | | |
| Outputs | | | 91 | 98 | 108 | 108 | 108 | 108 | 108 | 108 | 84 | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 921 |
| Outputs | | | | | | | | | | | | | | | | | | 921 |

METHOD OF IMPLEMENTATION: Field Retrofit **ADMINISTRATIVE LEADTIME:** 1 Month **PRODUCTION LEADTIME:** 3 Months

Contract Dates: FY 1999 Feb 1999 FY 2000 Enter Date FY 2001 Enter Date

Delivery Date: FY 1999 May 1999 FY 2000 Enter Date FY 2001 Enter Date

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|------------------------------|----------------------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|-----|-------|------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit A Quantity | 921 | | | | | | | | | | | | | | | | | | | 921 | |
| Installation Kits A | | 1.5 | | | | | | | | | | | | | | | | | | | 1.5 |
| Engineering Support | | 0.7 | | | | | | | | | | | | | | | | | | | 0.7 |
| Test | | 0.5 | | | | | | | | | | | | | | | | | | | 0.5 |
| Kit B Quantity | | | | | | | | | | | | | | | | | 921 | | | 921 | |
| Installation Kits B | | | | | | | | | | | | | | | | | | 3.6 | | | 3.6 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 745 | 1.1 | | | | | | | | | | | | | | | | | | 745 | 1.1 |
| FY 1999 Eqpt -- Kits | | | 176 | 0.3 | | | | | | | | | | | | | | | | 176 | 0.3 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip B-Kits | | | | | | | | | | | | | | | | | 921 | 1.1 | | 921 | 1.1 |
| Total Installment | 745 | 1.1 | 176 | 0.3 | | | | | | | | | | | | | 921 | 1.1 | | 1842 | 2.5 |
| Total Procurement Cost | | 3.8 | | 0.3 | | | | | | | | | | | | | | 4.6 | | | 8.7 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 52 | 24 | 10 | 15 | | | | | | | | 101 |
| Gross Cost | 119.4 | 55.5 | 32.0 | 50.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 257.8 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 119.4 | 55.5 | 32.0 | 50.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 257.8 |
| Initial Spares | 4.5 | 2.0 | | 2.9 | | | | | | | | 9.4 |
| Total Proc Cost | 123.9 | 57.5 | 32.0 | 53.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 267.3 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | 2.3 | 2.3 | 3.2 | 3.4 | | | | | | | | |

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 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 without using a second vehicle as a braking vehicle. The M88A2 HERCULES provides the Army this capability. The Army intends to use the FY99 program funding to satisfy the intent of Congress, while bringing the HERCULES program to an orderly close-out which will include; production and delivery of vehicles to bring the total quantity to 101, complete fieldings to selected FORSCOM and TRADOC units and complete essential configuration change enhancements. Due to lack of modernization funding, the Army intends to conclude the HERCULES program at the end of the FY99 program.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | 19400 | 10 | 1940 | 33600 | 15 | 2240 | | | | | | |
| 2. Vehicle Manufacturing - GFE | | | 1088 | 10 | 109 | 1952 | 15 | 130 | | | | | | |
| 3. Contractor Engineering | | | 3084 | | | 2472 | | | | | | | | |
| 4. Engineering Change Orders | | | | | | | | | | | | | | |
| 5. Project Management - Core | | | 1184 | | | 1214 | | | | | | | | |
| 6. Project Management - OGA | | | 901 | | | 980 | | | | | | | | |
| 7. Transportation | | | 20 | | | 30 | | | | | | | | |
| 8. Fielding | | | 580 | | | 1310 | | | | | | | | |
| 9. Testing | | | | | | 1000 | | | | | | | | |
| 10. Depot Maintenance - Premodification | | | | | | 1027 | | | | | | | | |
| 11. Fleet Retrofit (Enhancement ECP's) | | | 5736 | | | 1500 | | | | | | | | |
| 12. Program Close-Out | | | | | | 5858 | | | | | | | | |
| TOTAL | | | 31993 | | | 50943 | | | | | | | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: 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 FY 98 | UDLP (1) | SS-FFP | TACOM | Apr-98 | Jul-99 | 10 | 1940 | Yes | | Nov 97 |
| FY 99 | UDLP (1) | SS-FFP | TACOM | Nov-98 (2) | Feb-00 | 15 | 2240 | Yes | | Sep 98 |
| 2. Vehicle Manufacturing - GFE FY 98 | Government Furnished Equipment-Variou | | | | | 10 | 109 | Yes | | |
| FY 99 | | | | | | 15 | 130 | Yes | | |
| 3. Depot Maintenance - Premodification | Government Furnished Equipment-Variou | | ANAD | | | 15 | 68 | Yes | | |

REMARKS: (1) UDLP - United Defense Limited Partnership

(2) A contract was awarded November 1998 for the Long Lead Material to accelerate the FY99 deliveries and mitigate a production break. Production contract award is scheduled for February 1999.

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: IMPROVED RECOVERY VEHICLE (M88 MOD) (GA0570) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | | |
|---------------------------------------|--|-------|------|---------------|-----------------------|---------------------|--|---------|------------|-----------------|--------------|--------------|--------------|-------|---------|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|----|
| 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. Vehicle Manufacturing - Contractor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY 98 | A | 10 | 0 | 10 | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2 | 4 | | | |
| | 1 | FY 99 | A | 15 | 0 | 15 | | | | | | | | | | | | | | | | | | | | | | | 15 | | | |
| TOTALS | | | | 25 | | 25 | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2 | 19 |
| 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 | United Defense Limited Partnership, York, PA | | | | 2 | 3 | 5 | | | | 6 | | 15 | 21 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles
 P-1 Item Nomenclature: BREACHER SYSTEM (MOD) (GZ3200)

Program Elements for Code B Items: 0604649A
 Code: B
 Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|--------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | 11 | 11 | 16 | 24 | 30 | 274 | 360 |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 79.4 | 81.6 | 117.5 | 148.9 | 199.4 | 1810.2 | 2456.7 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 79.4 | 81.6 | 117.5 | 148.9 | 199.4 | 1810.2 | 2456.7 |
| Initial Spares | | | | | | | | 2.5 | 4.1 | 5.2 | 63.1 | 74.9 |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 79.4 | 81.6 | 120.0 | 153.0 | 204.6 | 1873.3 | 2531.6 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | 7.2 | 7.4 | 7.3 | 6.2 | 6.6 | 6.6 | 6.8 |

DESCRIPTION: The Grizzly (M1 Breacher) will be developed around the M-1 Abrams tank chassis and will integrate a versatile/survivable full-width mine clearing blade with automatic depth control, a power driven arm to reduce complex obstacles, and an armored commander's control station. The Grizzly will provide the Combat Engineer with significantly improved mission effectiveness and crew/vehicle survivability while clearing minefields and removing complex natural and man-made obstacles at the forward edge of the battlefield. The Grizzly will be capable of moving with, and be as survivable as, the force it is supporting. It will provide the maneuver force with the freedom required to successfully execute assigned ground combat mission requirements.

JUSTIFICATION: During Operation Desert Storm, it became evident that the Army had no one vehicle capable of performing an in stride, complex linear obstacle breach. The Grizzly provides a critical resource for executing in stride breaches, supporting the Force XXI maneuver commander's goals of information and maneuver dominance on the battlefield. The Grizzly, a single, survivable breach platform, gives the Combat Engineer a capability that does not currently exist in today's complex obstacle breaching operations. All existing counterobstacle and countermine systems are single purpose only, and lack the mobility, protection and agility of the current maneuver force. The Grizzly possesses a complex obstacle reducing capability, with mobility, protection, and agility comparable to the M-1 Abrams Tank.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: BREACHER SYSTEM (MOD) (GZ3200) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|---|--------------|------|---------------------|-------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY00 | | | FY 01 | | |
| | | 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 | | | | | | | | | | 48314 | 11 | 4392 |
| 2. Vehicle Manufacturing - ANAD | | | | | | | | | | | | 2952 | 11 | 268 |
| 3. Vehicle Manufacturing - GFE | | | | | | | | | | | | 9660 | 11 | 878 |
| 4. System Technical Support | | | | | | | | | | | | 14641 | | |
| 5. Engineering Change Orders | | | | | | | | | | | | 1929 | | |
| 6. Project Management Admin - Core | | | | | | | | | | | | 964 | | |
| 7. Project Management Admin - OGA | | | | | | | | | | | | 846 | | |
| 8. System Test & Evaluation | | | | | | | | | | | | | | |
| 9. Initial Production Facilities | | | | | | | | | 19680 | | | | | |
| 10. Fielding | | | | | | | | | | | | | | |
| 11. Interim Transportation | | | | | | | | | | | | 89 | | |
| 12. Support Equipment | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | 19680 | | | 79395 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | Weapon System Type: | | P-1 Line Item Nomenclature: BREACHER SYSTEM (MOD) (GZ3200) | | | | | |
|---|--|-----------------------------|-----------------|---------------------|---------------------------|---|--------------------|------------------------|------------------------|-------------------|--|
| WBS Cost Elements: 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. Initial Production Facilities - Contract FY00 | UDLP, York, PA* | SS-FFP | TACOM | Jun 00 | | | | | | Nov 99 | |
| 2. Vehicle Manufacturing - Contract FY01 | UDLP, York, PA* | SS-FFP | TACOM | Apr-01 | Mar-03 | 11 | 4392 | No | Dec 99 | Nov 00 | |
| 3. Vehicle Manufacturing - ANAD FY01 | Anniston Army Depot Anniston, Al | | | | | 11 | 268 | | | | |
| 4. Vehicle Manufacturing - GFE FY01 | Government Furnish Equipment- Various | | | | | 11 | 878 | | | | |

REMARKS:

*United Defense Limited Partnership

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: BREACHER SYSTEM (MOD) (GZ3200) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | |
|---------------------------------------|-----|------|------|---------------|-----------------------|---------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 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 | | | | | | | | | | | | LATER |
| | | | | | | | 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 Manufacturing - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contractor | 1 | FY01 | A | 11 | 0 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY02 | A | 11 | 0 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY03 | A | 16 | 0 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY04 | A | 24 | 0 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY05 | A | 30 | 0 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | 92 | 0 | 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 | UNITED DEFENSE LIMITED PARTNERSHIP, YORK, PA | 1 | 4 | 8 | | 1 | INITIAL | 7 | 2 | 18 | 20 | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | 7 | 2 | 18 | 20 | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: BREACHER SYSTEM (MOD) (GZ3200) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | |
|---------------------------------------|--|------|-------|---------------|-----------------------|---------------------|---|--------------|--------------|--------------|---------|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| 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 Manufacturing - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contractor | 1 | FY01 | A | 11 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY02 | A | 11 | 9 | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY03 | A | 16 | 0 | 16 | | | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | |
| | 1 | FY04 | A | 24 | 0 | 24 | | | | | | | | | | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | |
| | 1 | FY05 | A | 30 | 0 | 30 | | | | A | | | | | | | | | | | | | | | | 30 | | | | | |
| TOTAL | | | | 92 | 20 | 72 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 30 | | | | | |
| | | | | | | | 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 Number | ADMIN LEAD TIME | | MFR | TOTAL | REMARKS | | | | | | | | | | | | | | | | | | | | |
| | NAME / LOCATION | MIN. | 1-8-5 | MAX. | D + | 1 | Prior 1 Oct. | After 1 Oct. | After 1 Oct. | After 1 Oct. | | | | | | | | | | | | | | | | | | | | | |
| 1 | UNITED DEFENSE LIMITED PARTNERSHIP, YORK, PA | 1 | 4 | 8 | | | 7 | 2 | 18 | 20 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: 64649
 Code: B
 Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 2 | 6 | 6 | 8 | 13 | 17 | 21 | 22 | 36 | 33 | 302 | 466 |
| Gross Cost | 14.6 | 51.4 | 40.4 | 50.3 | 67.3 | 84.9 | 104.5 | 114.1 | 192.8 | 200.1 | 3039.3 | 3959.7 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 14.6 | 51.4 | 40.4 | 50.3 | 67.3 | 84.9 | 104.5 | 114.1 | 192.8 | 200.1 | 3039.3 | 3959.7 |
| Initial Spares | | | 0.9 | 0.9 | 1.3 | 1.4 | 1.8 | 2.0 | 3.5 | 3.5 | 54.3 | 69.6 |
| Total Proc Cost | 14.6 | 51.4 | 41.3 | 51.1 | 68.7 | 86.3 | 106.2 | 116.2 | 196.3 | 203.7 | 3093.6 | 4029.3 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | 7.3 | 8.6 | 6.7 | 6.3 | 5.2 | 5.0 | 5.0 | 5.2 | 5.4 | 6.1 | 10.1 | 8.5 |

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 will 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 mobility with the maneuver force, 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. Wolverine is a force modernization item for the engineer regiment and the First Digitized Division.

DTE - Dec 92, PVT - Jul-Aug 99, IOT&E - Sep-Dec 99, Developmental TDP - Oct 97. TC Standard - Aug 00. Replaces Armored Vehicle Launched Bridge (AVLB). Military Load Class improved from MLC 60 to MLC 70. Gap spanning capability improved from 17.4m (57') to 24m (79'). Provides mobility and protection comparable to the M1 Abrams Tank. Successful of completion DT&E (bridge durability) and successful completion of Phase I and II Live Fire Test (bridge & launch mechanism and sequence).

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | 25244 | 6 | 4207 | 28608 | 8 | 3576 | 45604 | 13 | 3508 | 60780 | 17 | 3575 |
| 2. Vehicle Manufacturing - ANAD | | | 1212 | 6 | 202 | 1880 | 8 | 235 | 3146 | 13 | 242 | 3790 | 17 | 223 |
| 3. Vehicle Manufacturing - GFE | | | 2664 | 6 | 444 | 3359 | 8 | 420 | 5629 | 13 | 433 | 6710 | 17 | 395 |
| 4. Contract Engineering | | | 8914 | | | 13328 | | | 6963 | | | 7763 | | |
| 5. Engineering Change Orders | | | | | | | | | 1160 | | | 1590 | | |
| 6. Project Mgmt Admin - Core | | | 961 | | | 950 | | | 870 | | | 880 | | |
| 7. Project Mgmt Admin - OGA | | | 1332 | | | 2101 | | | 1990 | | | 2020 | | |
| 8. New Equipment Training | | | | | | | | | 180 | | | 110 | | |
| 9. Total Package Fielding | | | | | | | | | 1210 | | | 750 | | |
| 10. Transportation | | | 45 | | | 45 | | | 430 | | | 290 | | |
| 11. Modifications | | | | | | | | | 130 | | | 210 | | |
| TOTAL | | | 40372 | | | 50271 | | | 67312 | | | 84893 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | | Weapon System Type: | | P-1 Line Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) | | | | |
|---|---|--------------------------|-----------------|---------------------|------------------------|--|-----------------|------------------|------------------|----------------|
| WBS Cost Elements: 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 FY 98 | General Dynamics Land Systems Lima, Ohio | SS-FFP M2 (1) | TACOM | Apr-98 | Oct-99 | 6 | 4207 | YES | | Aug 97 |
| FY 99 | | SS-FFP M2 (2) | TACOM | Dec-98 | Apr-00 | 8 | 3576 | YES | | Aug 97 |
| FY 00 | | SS-FFP OPTION | TACOM | Nov-99 | Dec-00 | 13 | 3508 | YES | | Aug 97 |
| FY 01 | | SS-FFP M5(1) | TACOM | Nov-00 | Dec-01 | 17 | 3575 | YES | | Apr 00 |
| 2. Vehicle Manufacturing - ANAD FY 98 | Anniston Army Depot Anniston, Alabama | | | | | 6 | 202 | | | |
| FY 99 | | | | | | 8 | 235 | | | |
| FY 00 | | | | | | 13 | 242 | | | |
| FY 01 | | | | | | 17 | 223 | | | |
| 3. Vehicle Manufacturing - GFE FY 98 | Government Furnished Equipment- Various | | | | | 6 | 444 | | | |
| FY 99 | | | | | | 8 | 420 | | | |
| FY 00 | | | | | | 13 | 433 | | | |
| FY 01 | | | | | | 17 | 395 | | | |

REMARKS:

| FY 00 / FY 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: HEAVY ASSAULT BRIDGE (HAB) SYS (MOD) (GZ3250) | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | | |
|--|--|------|-------|---------------|-----------------|---------------------|---|--------------|--------------|--------------|---------|-----|-----|-----|-----|-----|-----|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| COST ELEMENTS | MFR | FY | SERV | PROC QTY Each | ACCEP. TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 04 | | | | | | | | | | | | Fiscal Year 05 | | | | | | | | | | | | LATER |
| | | | | | | | 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 | |
| Vehicle Manufacturing - Contractor | 1 | FY96 | A | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY97 | A | 6 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY98 | A | 6 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY99 | A | 8 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY00 | A | 13 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY01 | A | 17 | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY02 | A | 21 | 17 | 4 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY03 | A | 22 | 0 | 22 | | | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | | | | | | | | | | | |
| | 1 | FY04 | A | 36 | 0 | 36 | | A | | | | | | | | | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | | | |
| | 1 | FY05 | A | 33 | 0 | 33 | | | | | | | | | | | | | A | | | | | | | | 33 | | | | |
| TOTAL | | | | 164 | 69 | 95 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | PRODUCTION RATES | | | | REACHED | MFR Number | ADMIN LEAD TIME | | MFR | TOTAL | REMARKS | | | | | | | | | | | | | | | | | | | | |
| | NAME / LOCATION | 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* | N/A* | N/A* | | | 7 | 2 | 13 | 15 | | | | | | | | | | | | | | | | | | | | | |
| | Lima, OH | | | | | | | 9 | 13 | 22 | | | | | | | | | | | | | | | | | | | | | |
| | *HAB vehicles will be produced on the same production line as the M1A2 SEP vehicles. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 146.2 | 0.0 | 0.0 | 1.0 | 1.4 | 1.8 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 151.1 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 146.2 | 0.0 | 0.0 | 1.0 | 1.4 | 1.8 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 151.1 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 146.2 | 0.0 | 0.0 | 1.0 | 1.4 | 1.8 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 151.1 |
| 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 assigned to Combat Engineer and Training Units, and War Reserve sites.

JUSTIFICATION:

- AVLB BLOCK MOD: To complete modification of the fleet, 86 vehicles (22% of the Active Component and high priority War Reserve units) need one or more 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 maneuver retreat under cover of obscuring smoke in a tactical environment. These vehicle modifications are required on AVLBs to make the vehicles supportable.
- BATTLEFIELD COMBAT IDENTIFICATION SYSTEM: Starting in FY00 Battlefield Combat Identification Systems (BCIS) are required for the AVLB through PM Combat ID.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

| | |
|--|--|
| 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 |
|-----------------------------------|-----------|--------------------------------|

| Description | | Fiscal Years | | | | | | | | | |
|---|-----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| AVLB Block Mod | | | | | | | | | | | |
| 1-97-05-4531 | Oper Capability | 0.0 | 1.0 | 1.2 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.9 |
| Battlefield Combat Identification Systems | | | | | | | | | | | |
| 0-00-00-0000 | Oper Capability | 0.0 | 0.0 | 0.2 | 0.1 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 1.0 |
| Totals | | 0.0 | 1.0 | 1.4 | 1.8 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 4.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: AVLB Block Mod 1-97-05-4531

MODELS OF SYSTEMS AFFECTED: M60A1/M48A5 AVLB

DESCRIPTION / JUSTIFICATION:

To complete modification of the fleet, 86 vehicles (22% of the Active Component and high priority War Reserve units) need one or more 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 maneuver 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:

| | | |
|------------|----------------|---------------------|
| | PLANNED | ACCOMPLISHED |
| TDP Review | | August 98 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|----|----|----|---------|----|----|----|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | 6 | 10 | 10 | 10 | 10 | 20 | 20 | | | | | |
| Inputs | | | | | | | | | | 6 | 10 | 10 | 10 | 10 | 20 | 20 | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 86 |
| Outputs | | | | | | | | | | | | | | | | | | | | 86 |

METHOD OF IMPLEMENTATION: Contr/Depot Field ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 9 Months

Contract Dates: FY 1999 June 99 FY 2000 December 99 FY 2001 December 00

Delivery Date: FY 1999 March 00 FY 2000 September 00 FY 2001 September 01

INDIVIDUAL MODIFICATION

Date February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | 21 | | 49 | | 16 | | | | | | | | | | | | | 86 | |
| Installation Kits | | | | 0.4 | | 0.8 | | 0.3 | | | | | | | | | | | | | 1.5 |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Contract Engineering | | | | 0.1 | | 0.1 | | | | | | | | | | | | | | | 0.2 |
| PM Support | | | | 0.2 | | 0.2 | | 0.2 | | | | | | | | | | | | | 0.6 |
| ANAD Effort | | | | 0.3 | | 0.1 | | 0.1 | | | | | | | | | | | | | 0.5 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | 21 | 0.3 | | | | | | | | | | | | 21 | 0.3 |
| FY 2000 Eqpt -- Kits | | | | | | | 49 | 0.6 | | | | | | | | | | | | 49 | 0.6 |
| FY 2001 Eqpt -- Kits | | | | | | | 16 | 0.2 | | | | | | | | | | | | 16 | 0.2 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | 86 | 1.1 | | | | | | | | | | | | 86 | 1.1 |
| Total Procurement Cost | | | | 1.0 | | 1.2 | | 1.7 | | | | | | | | | | | | | 3.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Battlefield Combat Identification Systems 0-00-00-0000

MODELS OF SYSTEMS AFFECTED: M60A1/M48A5 AVLB

DESCRIPTION / JUSTIFICATION:

Starting in FY00 Battlefield Combat Identification Systems (BCIS) are required for the AVLB through PM Combat ID.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | 1 | 1 | 1 | 3 | 3 | 3 | 4 | 4 | 4 | 2 | |
| Inputs | | | | | | | | | | | 1 | 1 | 1 | 3 | 3 | 3 | 4 | 4 | 4 | 2 |
| Outputs | | | | | | | | | | | 1 | 1 | 1 | 3 | 3 | 3 | 4 | 4 | 4 | 2 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 26 |
| Outputs | | | | | | | | | | | | | | | | | | | | 26 |

METHOD OF IMPLEMENTATION: Field **ADMINISTRATIVE LEADTIME:** 1 Months **PRODUCTION LEADTIME:** 2 Months
Contract Dates: FY 1999 FY 2000 FY 2001 November 00
Delivery Date: FY 1999 FY 2000 FY 2001 January 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Battlefield Combat Identification Systems 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|---------|----|-----|----|-------|----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | 3 | | 13 | | 10 | | | | | | | | 26 | | |
| Installation Kits | | | | | | | 0.1 | | 0.4 | | 0.3 | | | | | | | | | | 0.8 |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Contractor Engineering | | | | | | | 0.2 | | | | | | | | | | | | | | 0.2 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | | 0.2 | 0.1 | 0.4 | 0.3 | | | | | | | | | | | 1.0 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

| | |
|--|---|
| 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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 18.6 | 36.2 | 29.8 | 88.6 | 125.3 | 135.4 | 315.7 | 337.7 | 0.0 | 1087.3 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 18.6 | 36.2 | 29.8 | 88.6 | 125.3 | 135.4 | 315.7 | 337.7 | 0.0 | 1087.3 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 18.6 | 36.2 | 29.8 | 88.6 | 125.3 | 135.4 | 315.7 | 337.7 | 0.0 | 1087.3 |
| 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 Embedded Battle Command (EBC). Tank Survivability and Safety improvements include Block G (Manual Blaster, Driver's / Loader's Hatch Ballistic Rims, Turret Cable Ballistic Protection, Driver's Hatch Latch, Ammo Door Latch Mechanism, Smoke Generator Fuel Line, Improved Gunner's Station and Battlefield Override); NBC Fire Warning System (NBCFW); new Hand - Held Fire Extinguishers (HHFE); Driver's Viewer Quick Release (DVQR); System Enhancement Package (SEP) and Driver's Hatch Interlock (DHI). Tank Operational improvements include the Battlefield Combat Identification system (BCIS); Precision Lightweight GPS Receiver (PLGR); Pulse - Jet System (PJS); Vehicle Intercommunications System (VIS); External Auxiliary Power Unit (EAPU); M1A2 Field Upgrades, the M1A1-D (Digitization) program; and the DU Armor and Improved Turret Side Armor programs. Finally, there is the Presidentially directed HALON Replacement program (Ozone Depleting Chemical Replacement).

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
February 1999

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

| Description | | Fiscal Years | | | | | | | | | |
|---|-----------------------|--------------|---------|---------|---------|---------|---------|---------|---------|-------|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Halon Replacement (HAR) [MOD 1] | | | | | | | | | | | |
| 1-92-05-4411 | Environmental | 9.5 | 0.0 | 0.0 | 0.4 | 0.7 | 0.8 | 1.1 | 1.3 | 38.4 | 52.2 |
| Driver's Hatch Interlock (DHI) [Mod 2] | | | | | | | | | | | |
| 1-97-05-4520 | Safety | 20.5 | 5.8 | 3.4 | 7.1 | 7.2 | 7.4 | 7.4 | 2.9 | 0.0 | 61.7 |
| Vehicle Intercommunications System (VIS) [MOD 3] | | | | | | | | | | | |
| 1-92-05-4412 | Legislative Compl. | 40.4 | 11.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 52.9 |
| Battlefield Combat I.D. System (BCIS) [MOD 4] | | | | | | | | | | | |
| 1-98-05-4543 | Operational | 0.0 | 0.0 | 2.0 | 3.8 | 9.4 | 2.0 | 0.0 | 0.0 | 10.3 | 27.5 |
| Precision Lightweight GPS Receiver (PLGR) [MOD 5] | | | | | | | | | | | |
| 1-92-05-4417 | Manprint | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 12.0 | 16.9 |
| Block G Mods [MOD 6] | | | | | | | | | | | |
| 1-99-05-4554 | Deficiency Correction | 47.2 | 12.1 | 0.0 | 2.1 | 5.6 | 4.8 | 3.7 | 2.3 | 4.0 | 81.8 |
| Driver's Viewer Quick Release (DVQR) [MOD 7] | | | | | | | | | | | |
| 1-92-05-4427 | Safety | 1.0 | 0.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 1.6 |
| Pulse - Jet System (PJS) [MOD 8] | | | | | | | | | | | |
| 1-92-05-4475 | Operational | 38.7 | 2.5 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 302.9 | 345.3 |
| System Enhancement Package (SEP) [MOD 9] | | | | | | | | | | | |
| 1-96-05-4505 | Operational | 0.0 | 0.0 | 0.0 | 36.5 | 59.0 | 88.3 | 137.5 | 168.4 | 401.3 | 891.0 |
| Embedded Battle Command (EBC) [MOD 10] | | | | | | | | | | | |
| 1-96-05-4516 | Operational | 0.0 | 0.0 | 0.0 | 7.7 | 4.2 | 4.0 | 16.2 | 20.6 | 22.1 | 74.8 |
| External Auxiliary Pwr Unit (EAPU) [MOD 11] | | | | | | | | | | | |
| 1-85-05-4057 | Operational | 58.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 40.7 | 99.0 |
| NBC Fire Warning (NBCFW) [MOD 12] | | | | | | | | | | | |
| 1-97-05-4524 | Safety | 0.0 | 1.8 | 2.1 | 2.1 | 2.2 | 2.2 | 2.2 | 0.3 | 0.0 | 12.9 |

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

| 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 | | | | | | | |
| Description | | Fiscal Years | | | | | | | | | |
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Hand-Held Fire Extinguisher (HHFE) [MOD 13] | | | | | | | | | | | |
| 1-97-05-4525 | Safety | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 |
| M1A2 Field Mods (A2FM) [MOD 14] | | | | | | | | | | | |
| 1-97-05-4534 | Deficiency Correction | 2.1 | 0.8 | 1.4 | 1.5 | 0.9 | 1.3 | 1.2 | 1.0 | 3.0 | 13.2 |
| Matrix Support (MXSP) [MOD 15] | | | | | | | | | | | |
| OSIP NO 20 | Operational | 1.4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 1.9 | 7.5 |
| DU Armor [MOD 16] | | | | | | | | | | | |
| 1-98-05-4545 | Operational | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.7 | 54.1 | 619.2 | 770.0 |
| Enhanced Situational Awareness [MOD 17] | | | | | | | | | | | |
| 1-98-05-4542 | Operational | 4.9 | 0.3 | 16.4 | 25.2 | 34.8 | 23.3 | 23.8 | 34.0 | 131.9 | 294.6 |
| Improved Turret Side Armor [MOD 18] | | | | | | | | | | | |
| 1-99-05-4555 | Operational | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.6 | 51.5 | 343.4 | 419.5 |
| Totals | | 224.7 | 36.2 | 29.8 | 88.6 | 125.3 | 135.4 | 315.7 | 337.7 | 1,931.1 | 3,224.4 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Halon Replacement (HAR) [MOD 1] 1-92-05-4411

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 818, M1A1 = 4327, M1A2 = 747 TOTAL = 5892

DESCRIPTION / JUSTIFICATION:

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 the Armed Forces and DA letter 200 / 9 which implements that policy within the U.S. Army.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | | |
|----------------------------------|-----------|------|------|
| 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 | - - - - - | 1Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | 33 | 33 | 34 | 29 | 29 | 29 | 29 | 34 | 34 | 34 | 35 |
| Inputs | | | | | | | | | | | | | 25 | 25 | 25 | 25 | 29 | 29 | 29 | 29 |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 43 | 43 | 43 | 43 | 48 | 49 | 49 | 49 | | | | | | | | | 5172 | 5892 |
| Outputs | 34 | 34 | 34 | 35 | 43 | 43 | 43 | 43 | | | | | | | | | 5367 | 5892 |

METHOD OF IMPLEMENTATION: Contractor Team ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 4 Months

Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 MAR 01
 Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 OCT 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Halon Replacement (HAR) [MOD 1] 1-92-05-4411

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|------|------|------|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | 100 | | 116 | | 137 | | 172 | | 195 | | 5172 | | 5892 | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | 0.4 | 0.4 | | 0.5 | | 0.7 | | 0.8 | | 22.5 | | 25.3 | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Engr. & Source Selection | 9.5 | | | | | | | | | | | | | | | | | | | | 9.5 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | 100 | 0.3 | | | | | | | | | | | 100 | 0.3 |
| FY 2002 Eqpt -- kits | | | | | | | | | | 116 | 0.3 | | | | | | | | | 116 | 0.3 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | 137 | 0.4 | | | | | | | 137 | 0.4 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | 172 | 0.5 | | | | | 172 | 0.5 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | 195 | 0.6 | | | 195 | 0.6 |
| TC Equip-Kits | | | | | | | | | | | | | | | | 5172 | 15.3 | | | 5172 | 15.3 |
| Total Installment | | | | | | | | | 100 | 0.3 | 116 | 0.3 | 137 | 0.4 | 172 | 0.5 | 5367 | 15.9 | 5892 | 17.4 | |
| Total Procurement Cost | 9.5 | | | | | | | 0.4 | 0.7 | | 0.8 | | 1.1 | | 1.3 | | 38.4 | | 52.2 | | |

INDIVIDUAL MODIFICATION

Date February 1999

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:

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 recent 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 incidents will not occur in the future.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | | | | | |
|------------------------------|---|---|---|---|------|------|
| 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 | 2Q98 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | | |
|----------------|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | |
| Inputs | 770 | 335 | 335 | 335 | 335 | 197 | 197 | 197 | 196 | 153 | 153 | 153 | 152 | 151 | 150 | 150 | 151 | 151 | 150 | 150 | 151 |
| Outputs | 435 | 335 | 335 | 335 | 335 | 197 | 197 | 197 | 196 | 153 | 153 | 153 | 152 | 151 | 151 | 150 | 150 | 151 | 151 | 150 | 150 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|-----|-----|-----|---------|-----|-----|-----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 151 | 150 | 150 | 151 | 151 | 115 | | | | | | | | | | | | 5580 |
| Outputs | 151 | 151 | 150 | 150 | 151 | 151 | 150 | 149 | | | | | | | | | | 5580 |

METHOD OF IMPLEMENTATION: Contractor Teams **ADMINISTRATIVE LEADTIME:** 2 Months **PRODUCTION LEADTIME:** 4 Months

Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 MAR 01

Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 JUL 01

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|------|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 3173 | | | | | | 602 | | 602 | | 602 | | 601 | | | | | | | 5580 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 19.4 | | | | | 4.4 | | 4.5 | | 4.6 | | 4.6 | | | | | | | | 37.5 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Testing | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | 0.1 | | | | | | | | | | | | | | | | | | | 0.1 |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 435 | 1.0 | 1340 | 5.8 | 787 | 3.4 | 611 | 2.7 | | | | | | | | | | | | 3173 | 12.9 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | 602 | 2.7 | | | | | | | | | | 602 | 2.7 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 602 | 2.8 | | | | | | | | 602 | 2.8 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 602 | 2.8 | | | | | | 602 | 2.8 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 601 | 2.9 | | | | 601 | 2.9 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 435 | 1.0 | 1340 | 5.8 | 787 | 3.4 | 611 | 2.7 | 602 | 2.7 | 602 | 2.8 | 602 | 2.8 | 601 | 2.9 | | | | 5580 | 24.1 |
| Total Procurement Cost | | 20.5 | | 5.8 | | 3.4 | | 7.1 | | 7.2 | | 7.4 | | 7.4 | | 2.9 | | | | | 61.7 |

INDIVIDUAL MODIFICATION

Date February 1999

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:

The Vehicle Intercommunications System (VIS) is an intercom for inter-crew communications and a connection to a radio for tank 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 funding includes \$3.0M which Congress added to the President's Budget in FY 99 for validation of the "Wireless" VIS concept.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | | |
|----------------------------------|------------|------|------|
| Development Test & Eval. | -- - - - - | 4Q92 | 2Q92 |
| Initial Operational Test & Eval. | - - - - - | 3Q94 | 3Q94 |
| IPR Production Decision | -- - - - - | 4Q94 | 4Q94 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|-----|-----|-----|---------|-----|-----|-----|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | 3735 | 120 | 120 | 120 | 120 | 120 | 53 | | | | | | | | | | | | | |
| Outputs | 3223 | 128 | 128 | 128 | 128 | 194 | 193 | 193 | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 4508 |
| Outputs | | | | | | | | | | | | | | | | | | | | 4508 |

METHOD OF IMPLEMENTATION: Depot/Contr. Teams ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 4 Months
 Contract Dates: FY 1999 JUN 99 FY 2000 N/A FY 2001 N/A
 Delivery Date: FY 1999 OCT 99 FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Vehicle Intercommunications System (VIS) [MOD 3] 1-92-05-4412

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|------|---------|------|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 3735 | | 773 | | | | | | | | | | | | | | | | | 4508 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 33.5 | | 7.7 | | | | | | | | | | | | | | | | | 41.2 |
| Equipment, Nonrecurring | | | | 3.0 | | | | | | | | | | | | | | | | | 3.0 |
| Engineering Change Orders | | 0.2 | | | | | | | | | | | | | | | | | | | 0.2 |
| Testing | | 0.2 | | | | | | | | | | | | | | | | | | | 0.2 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | 1.6 | | | | | | | | | | | | | | | | | | | 1.6 |
| Interim Contractor Support | | 0.4 | | | | | | | | | | | | | | | | | | | 0.4 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 3223 | 4.5 | 512 | 0.7 | | | | | | | | | | | | | | | | 3735 | 5.2 |
| FY 1999 Eqpt -- Kits | | | | | 773 | 1.1 | | | | | | | | | | | | | | 773 | 1.1 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 3223 | 4.5 | 512 | 0.7 | 773 | 1.1 | | | | | | | | | | | | | | 4508 | 6.3 |
| Total Procurement Cost | | 40.4 | | 11.4 | | 1.1 | | | | | | | | | | | | | | | 52.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Battlefield Combat I.D. System (BCIS) [MOD 4] 1-98-05-4543

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 0, M1A2 = 627 TOTAL RQMT = 627

DESCRIPTION / JUSTIFICATION:

The Battlefield Combat Identification System (BCIS) is a millimeter wave Question and Answer system that will provide positive identification of friendly ground vehicles to minimize battlefield fratricide and enhance combat effectiveness. The BCIS is a designated Army Horizontal Technology Integration (HTI) Initiative.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | |
|------------------------|-------|-------|
| Milestone II | 3Q 93 | 3Q 93 |
| Critical Design Review | 2Q 94 | 2Q 94 |
| PPQT / LUT | 1Q 95 | 1Q 95 |
| T. F. XXI Demo | 3Q 97 | 3Q 97 |
| NATO Demo | 4Q 97 | 4Q 97 |
| LRIP IPR | 2Q 99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | | | | | | | 11 | 11 | 11 | 12 | 22 | 22 | 23 | 23 | 62 | 62 | 73 | 73 |
| Outputs | | | | | | | | | | 10 | 15 | 20 | 23 | 22 | 23 | 22 | 67 | 67 | 68 | 68 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | 222 | 627 |
| Outputs | | | | | | | | | | | | | | | | | 222 | 627 |

METHOD OF IMPLEMENTATION: Contractor Install ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 8 Months
 Contract Dates: FY 1999 N/A FY 2000 APR 00 FY 2001 APR 01
 Delivery Date: FY 1999 N/A FY 2000 DEC 00 FY 2001 DEC 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Battlefield Combat I.D. System (BCIS) [MOD 4] 1-98-05-4543

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|------|-------|------|--|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | 45 | | 90 | | 250 | | 20 | | | | | | 222 | | 627 | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | 2.0 | | 3.7 | | 9.2 | | 1.5 | | | | | | 9.8 | | 26.2 | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | 45 | 0.1 | | | | | | | | | | | 45 | 0.1 | |
| FY 2001 Eqpt -- Kits | | | | | | | | | 90 | 0.2 | | | | | | | | | 90 | 0.2 | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 270 | 0.5 | | | | | | | 270 | 0.5 | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 222 | 0.5 | 222 | 0.5 | |
| Total Installment | | | | | | | 45 | 0.1 | 90 | 0.2 | 270 | 0.5 | | | | | 222 | 0.5 | 627 | 1.3 | |
| Total Procurement Cost | | | | | | 2.0 | | 3.8 | | 9.4 | | 2.0 | | | | | | 10.3 | | 27.5 | |

INDIVIDUAL MODIFICATION

Date February 1999

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 = 4327

DESCRIPTION / JUSTIFICATION:

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:

PLANNED

ACCOMPLISHED

| | | | |
|----------------------------------|-----------|------|------|
| Preliminary Design Review | - - - - - | 2Q91 | 2Q91 |
| Critical Design Review | - - - - - | 4Q91 | 4Q91 |
| Contractor Test & Eval. | - - - - - | 3Q93 | 4Q93 |
| Development Test & Eval. | - - - - - | 1Q94 | 3Q94 |
| Initial Operational Test & Eval. | - - - - - | 4Q94 | 1Q95 |
| IPR Production Decision | - - - - - | 4Q94 | 2Q95 |
| TDP Available | - - - - - | 2Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | 38 | | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Outputs | 38 | | | | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | | | | | | | 3089 | 4327 |
| Outputs | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | | | | | | | | | 3089 | 4327 |

METHOD OF IMPLEMENTATION: Contractor Team **ADMINISTRATIVE LEADTIME:** 2 Months **PRODUCTION LEADTIME:** 5 Months

Contract Dates: FY 1999 MAR 99 FY 2000 MAR 00 FY 2001 MAR 01

Delivery Date: FY 1999 AUG 99 FY 2000 AUG 00 FY 2001 AUG 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Precision Lightweight GPS Receiver (PLGR) [MOD 5] 1-92-05-4417

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|------|------|-------|------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 38 | | 200 | | 200 | | 200 | | 200 | | 200 | | 200 | | 200 | | 2889 | | 4327 | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 0.1 | | 0.5 | | 0.5 | | 0.5 | | 0.5 | | 0.5 | | 0.5 | | 0.5 | | 8.9 | | 12.5 | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | 0.2 | | | | | | | | | | | | | | | | | | | 0.2 |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other [Benet Labs] | | 0.2 | | | | | | | | | | | | | | | | | | | 0.2 |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 38 | 0.1 | | | | | | | | | | | | | | | | | 38 | 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 | 0.2 | | | | | 200 | 0.2 | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 200 | 0.2 | | | 200 | 0.2 | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 200 | 0.2 | 200 | 0.2 | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 2889 | 2.9 | 2889 | 2.9 | |
| Total Installment | 38 | 0.1 | | | 200 | 0.1 | 200 | 0.1 | 200 | 0.1 | 200 | 0.1 | 200 | 0.2 | 200 | 0.2 | 3089 | 3.1 | 4327 | 4.0 | |
| Total Procurement Cost | | 0.6 | | 0.5 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.7 | | 0.7 | | 12.0 | | 16.9 | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Block G Mods [MOD 6] 1-99-05-4554

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 81, TOTAL = 4408

DESCRIPTION / JUSTIFICATION:

Block G consists of the following M1A1/M1A2 Tank modifications: [1] Independent Manual Blaster, [2] Driver's/Loader's Hatch Ballistic Rims, [3] AFES Wiring Harness Ballistic Protection, [4] Driver's Hatch Latch, [5] Improved Gunner's Station, [6] Smoke Generator Fuel Line, [7] Turret Ammunition Door Locking Mechanism and [8] Battlefield Override. Each of these modifications corrects a deficiency found during Live-Fire Testing or during combat in Operation Desert Storm. These modifications were planned for concurrent procurement & installation. Quantities are shown as various because fielded tanks require varying numbers of the listed components due to production differences and because of unmatched kit deliveries from different small business vendors.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Contractor/Depot Teams **ADMINISTRATIVE LEADTIME:** 2 Months **PRODUCTION LEADTIME:** 6 Months
Contract Dates: FY 1999 FEB 99 FY 2000 FEB 00 FY 2001 FEB 01
Delivery Date: FY 1999 AUG 99 FY 2000 AUG 00 FY 2001 AUG 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Block G Mods [MOD 6] 1-99-05-4554

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|------|---------|------|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|------|-----|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | var. | | | | | | var. | | var. | | var. | | var. | | var. | | var. | | | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 15.7 | | | | | | 1.9 | | 1.6 | | 1.3 | | 0.7 | | 0.3 | | 0.1 | | 21.6 | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | var. | 31.5 | | | | | | | | | | | | | | | | | | | 31.5 |
| FY 1999 Eqpt -- Kits | | | var. | 12.1 | | | | | | | | | | | | | | | | | 12.1 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | var. | 0.2 | | | | | | | | | | | | | 0.2 |
| FY 2002 Eqpt -- kits | | | | | | | | | var. | 4.0 | | | | | | | | | | | 4.0 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | var. | 3.5 | | | | | | | | | 3.5 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | var. | 3.0 | | | | | | | 3.0 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | var. | 2.0 | | | | | 2.0 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | var. | 3.9 | | | 3.9 |
| Total Installment | | 31.5 | | 12.1 | | | | 0.2 | | 4.0 | | 3.5 | | 3.0 | | 2.0 | | 3.9 | | 60.2 | |
| Total Procurement Cost | | 47.2 | | 12.1 | | | | 2.1 | | 5.6 | | 4.8 | | 3.7 | | 2.3 | | 4.0 | | 81.8 | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Driver's Viewer Quick Release (DVQR) [MOD 7] 1-92-05-4427

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 181 TOTAL RQMT = 4508

DESCRIPTION / JUSTIFICATION:

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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: PLANNED ACCOMPLISHED

| | | | |
|--------------------------|-----------|------|------|
| Critical Design Review | - - - - - | 4Q93 | 4Q93 |
| Development Test & Eval. | - - - - - | 1Q94 | 1Q94 |
| IPR Production Decisi | - - - - - | 3Q94 | 3Q94 |
| TDP Available | - - - - - | 4Q94 | 4Q94 |

Installation Schedule:

| | Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|-------|---------|-----|-----|-----|---------|---|---|---|---------|---|---|---|---------|---|---|-----|---------|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | 2292 | 450 | 450 | 450 | 325 | | | | | | | | | | | | 102 | 101 | 101 | 101 | 34 |
| Outputs | 2092 | 450 | 475 | 475 | 475 | | | | | | | | | | | | | 102 | 101 | 101 | 101 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 34 | 34 | 34 | | | | | | | | | | | | | | | 4508 |
| Outputs | 34 | 34 | 34 | 34 | | | | | | | | | | | | | | 4508 |

METHOD OF IMPLEMENTATION: Depot Field Team ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months
Contract Dates: FY 1999 FEB 99 FY 2000 N/A FY 2001 N/A
Delivery Date: FY 1999 MAY 99 FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Driver's Viewer Quick Release (DVQR) [MOD 7] 1-92-05-4427

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|-----|---------|-----|---------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|----|-----|----|-------|------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 3967 | | | | | | | | 405 | | 136 | | | | | | | | | 4508 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 0.5 | | | | | | | 0.1 | | 0.0 | | | | | | | | | | 0.6 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 2092 | 0.5 | | | | | | | | | | | | | | | | | | 2092 | 0.5 |
| FY 1999 Eqpt -- Kits | | | 1875 | 0.4 | | | | | | | | | | | | | | | | 1875 | 0.4 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 405 | 0.1 | | | | | | | | 405 | 0.1 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 136 | 0.0 | | | | | | 136 | 0.0 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 2092 | 0.5 | 1875 | 0.4 | | | | | | | 405 | 0.1 | 136 | 0.0 | | | | | | 4508 | 1.0 |
| Total Procurement Cost | | 1.0 | | 0.4 | | | | | | 0.1 | | 0.1 | | 0.0 | | | | | | | 1.6 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Pulse - Jet System (PJS) [MOD 8] 1-92-05-4475

MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 4327 , M1A2 = 228 TOTAL RQMT = 4555

DESCRIPTION / JUSTIFICATION:

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&S costs. PJS was identified as user priority number one by Abrams tank units involved in Operation Desert Storm (ODS). NOTE: 180ea additional PJS Kits were procured using FY97 DBOF OSCR (O & 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | | |
|----------------------------------|-----------|------|------|
| 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 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | 514 | 60 | 60 | 60 | 60 | 60 | | | | | | | | | | | | | | |
| Outputs | 425 | 77 | 76 | 76 | 76 | 48 | 48 | 48 | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | |
| Inputs | | | | | | | | | | | | | | | | | | 3681 | 4555 |
| Outputs | | | | | | | | | | | | | | | | | | 3681 | 4555 |

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME: 24 Months

PRODUCTION LEADTIME: 24 Months

Contract Dates: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date

Delivery Date: FY 1999 Enter Date FY 2000 Enter Date FY 2001 Enter Date

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Pulse - Jet System (PJS) [MOD 8] 1-92-05-4475

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | | |
|---------------------------------|-------------------|------|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|---------|----|------|-------|-------|-------|-------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 694 | | | | | | | | | | | | | | | | 3681 | 258.5 | 4375 | 258.5 | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 32.6 | | | | | | | | | | | | | | | | | | | 32.6 | |
| Equipment, Nonrecurring | | 0.6 | | | | | | | | | | | | | | | | | | | 0.6 | |
| Engineering Change Orders | | 1.0 | | | | | | | | | | | | | | | | | | | 1.0 | |
| Testing | | 0.9 | | | | | | | | | | | | | | | | | | | 0.9 | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 425 | 3.6 | | | | | | | | | | | | | | | | | | | 425 | 3.6 |
| FY 1999 Eqpt -- Kits | | | 305 | 2.5 | | | | | | | | | | | | | | | | | 305 | 2.5 |
| FY 2000 Eqpt -- Kits | | | | | 144 | 1.2 | | | | | | | | | | | | | | | 144 | 1.2 |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 3681 | 44.4 | 3681 | 44.4 | | |
| Total Installment | 425 | 3.6 | 305 | 2.5 | 144 | 1.2 | | | | | | | | | | | 3681 | 44.4 | 4555 | 51.7 | | |
| Total Procurement Cost | | 38.7 | | 2.5 | | 1.2 | | | | | | | | | | | | 302.9 | | | 345.3 | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: System Enhancement Package (SEP) [MOD 9] 1-96-05-4505

MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 0 , M1A2 = 627 TOTAL RQMT = 627

DESCRIPTION / JUSTIFICATION:

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 memory and software partitioning necessary for the M1A2 to operate in the Army's planned common operating environment. The integration of second generation thermal imaging capabilities to the Commander's Independent Thermal Viewer (CITV) and Gunner's Primary Sight (GPS) will significantly increase the capabilities of these Fire-Control sub-systems. This upgrade also allows for 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 & Control Systems and maximize commonality with other Ground Combat systems. For this effort hardware procurement funds will include installation costs.

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

| | | | |
|----------------------------------|-----------|------|------|
| Preliminary Design Review | - - - - - | 3Q95 | 3Q95 |
| Critical Design Review | - - - - - | 2Q97 | 2Q97 |
| Contractor Test & Eval. | - - - - - | 3Q98 | 3Q98 |
| Development Test & Eval. | - - - - - | 1Q99 | 1Q99 |
| Initial Operational Test & Eval. | - - - - - | 3Q99 | |
| IPR Production Decision | - - - - - | 4Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | 10 | 15 | 11 | 10 | 10 | 10 |
| Inputs | | | | | | | | | | | | | | | 10 | 15 | 11 | 10 | 10 | 10 |
| Outputs | | | | | | | | | | | | | | | 10 | 15 | 11 | 10 | 10 | 10 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 15 | 16 | 15 | 16 | 23 | 24 | 25 | 25 | | | | | | | | | 402 | 627 |
| Outputs | 15 | 16 | 15 | 16 | 23 | 24 | 25 | 25 | | | | | | | | | 402 | 627 |

METHOD OF IMPLEMENTATION: Contractor Team ADMINISTRATIVE LEADTIME: 7 Months PRODUCTION LEADTIME: 9 Months
Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 OCT 00
Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 JUN 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): System Enhancement Package (SEP) [MOD 9] 1-96-05-4505

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-------|----|-------|----|--|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | 25 | | 41 | | 62 | | 97 | | 120 | | 282 | | 627 | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | 36.5 | | 59.0 | | 88.3 | | 137.5 | | 168.4 | | 401.3 | | 891.0 | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | | 36.5 | | 59.0 | | 88.3 | | 137.5 | | 168.4 | | 401.3 | | 891.0 | | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Embedded Battle Command (EBC) [MOD 10] 1-96-05-4516

MODELS OF SYSTEMS AFFECTED: M1A1-D & M1A2-SEP

DESCRIPTION / JUSTIFICATION:
 Embedded Battle Command (EBC) refers to the Command and Control software required for digital communications between the Abrams tanks and the other members of the combined arms team. The Force XXI Battle Command Brigade and Below [FBCB2] Initial Operational Test & Evaluation as noted in the milestones below, will be the first formal user test of this software. This budget line provides the means for updating microprocessors and software in order to keep abreast of advances in digital computing and wireless networking technologies..

| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: | | PLANNED | ACCOMPLISHED |
|--|-----------|---------|--------------|
| Preliminary Design Review | - - - - - | 2Q97 | 3Q97 |
| Critical Design Review | - - - - - | 3Q97 | 4Q97 |
| Contractor Test & Eval. | - - - - - | 1Q98 | 1Q98 |
| Development Test & Eval. | - - - - - | 3Q98 | 3Q98 |
| IOT&E [Now FBCB2] | - - - - - | 1Q00 | |
| IPR Production Decision | - - - - - | 2Q00 | |
| TDP Available | - - - - - | 3Q00 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Svc. Rep. **ADMINISTRATIVE LEADTIME:** 2 Months **PRODUCTION LEADTIME:** 8 Months
Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 NOV 00
Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 JUL 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Embedded Battle Command (EBC) [MOD 10] 1-96-05-4516

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | 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 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | | | 7.7 | 4.2 | 4.0 | 16.2 | 20.6 | 22.1 | 74.8 | | | | | | | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: External Auxiliary Pwr Unit (EAPU) [MOD 11] 1-85-05-4057

MODELS OF SYSTEMS AFFECTED: M1 = 0 , IPM1 = 0 , M1A1 = 3000 , M1A2 = 0 TOTAL RQMT = 3000

DESCRIPTION / JUSTIFICATION:

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 and will be fully integrated with the tank electrical systems. The EAPU has its own fuel supply and can provide power for 10 to 12 hours on one tank - full of diesel fuel. The EAPU will be temporarily installed on M1A2s until they are retrofitted with SEP (Which includes an Under Armor APU). These EAPUs will then be transferred to M1A1's.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | | | |
|----------------------------------|-----------|-------|----|--|
| Preliminary Design Review | - - - - - | N / A | ** | ** This is a re-buy of an item last procured in FY FY91/92 |
| 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 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | 1836 | | | | | | | | | | | | | | | | | | | |
| Outputs | 1836 | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | |
| Inputs | | | | | | | | | | | | | | | | | | 1164 | 3000 |
| Outputs | | | | | | | | | | | | | | | | | | 1164 | 3000 |

METHOD OF IMPLEMENTATION: Cntrtr./Depot Teams **ADMINISTRATIVE LEADTIME:** 4 Months **PRODUCTION LEADTIME:** 6 Months

Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 N/A

Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): External Auxiliary Pwr Unit (EAPU) [MOD 11] 1-85-05-4057

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|------|-------|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 1836 | | | | | | | | | | | | | | | | | 1164 | | 3000 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 49.9 | | | | | | | | | | | | | | | | | 32.5 | | 82.4 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 1836 | 8.4 | | | | | | | | | | | | | | | | | | 1836 | 8.4 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | 1164 | 8.2 | 1164 | 8.2 |
| Total Installment | 1836 | 8.4 | | | | | | | | | | | | | | | | 1164 | 8.2 | 3000 | 16.6 |
| Total Procurement Cost | | 58.3 | | | | | | | | | | | | | | | | | 40.7 | | 99.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: NBC Fire Warning (NBCFW) [MOD 12] 1-97-05-4524

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 4327, M1A2 = 0 TOTAL RQMT = 4327

DESCRIPTION / JUSTIFICATION:
 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: | | PLANNED | ACCOMPLISHED |
|--|-----------|---------|--------------|
| Preliminary Design Review | - - - - - | 2Q96 | 3Q96 |
| Critical Design Review | - - - - - | 3Q97 | 3Q97 |
| Initial Operational Test & Eval. | - - - - - | 1Q98 | 1Q98 |
| IPR Production Decision | - - - - - | 2Q98 | 2Q98 |
| T D P Available | - - - - - | 1Q99 | 1Q99 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|---------|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | | 181 | 181 | 180 | 180 | 181 | 181 | 180 | 180 | 181 | 181 | 180 | 180 | 181 | 181 | 180 | 180 | 181 |
| Outputs | | | | | 180 | 181 | 180 | 181 | 180 | 181 | 180 | 181 | 180 | 181 | 180 | 181 | 180 | 181 | 180 | 181 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|-----|-----|-----|---------|-----|-----|-----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 181 | 180 | 180 | 181 | 181 | 180 | 175 | | | | | | | | | | | 4327 |
| Outputs | 180 | 181 | 180 | 181 | 180 | 181 | 180 | 176 | | | | | | | | | | 4327 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 7 Months
 Contract Dates: FY 1999 JAN 99 FY 2000 JAN 00 FY 2001 JAN 01
 Delivery Date: FY 1999 AUG 99 FY 2000 AUG 00 FY 2001 AUG 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): NBC Fire Warning (NBCFW) [MOD 12] 1-97-05-4524

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | | |
|---------------------------------|-------------------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|-----|----|-------|----|------|------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | 722 | | 722 | | 722 | | 722 | | 722 | | 717 | | | | | | | | 4327 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | 1.7 | | 1.8 | | 1.8 | | 1.9 | | 1.9 | | 1.9 | | | | | | | | 11.0 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | 0.1 | | | | | | | | | | | | | | | | | | 0.1 |
| Data | | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | 722 | 0.3 | | | | | | | | | | | | | | | 722 | 0.3 |
| FY 2000 Eqpt -- Kits | | | | | | | 722 | 0.3 | | | | | | | | | | | | | 722 | 0.3 |
| FY 2001 Eqpt -- Kits | | | | | | | | | 722 | 0.3 | | | | | | | | | | | 722 | 0.3 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 722 | 0.3 | | | | | | | | | 722 | 0.3 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 722 | 0.3 | | | | | | | 722 | 0.3 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 717 | 0.3 | | | | | 717 | 0.3 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | 722 | 0.3 | 722 | 0.3 | 722 | 0.3 | 722 | 0.3 | 722 | 0.3 | 717 | 0.3 | | | | | 4327 | 1.8 |
| Total Procurement Cost | | | | 1.8 | | 2.1 | | 2.1 | | 2.2 | | 2.2 | | 2.2 | | 0.3 | | | | | | 12.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Hand-Held Fire Extinguisher (HHFE) [MOD 13] 1-97-05-4525

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 3750, M1A2 = 0 TOT RQMT = 3750

DESCRIPTION / JUSTIFICATION:
 Under the terms of the 1988 Montreal Protocol in which 93 countries including the U.S.A. agreed to phase out Ozone Depleting Chemicals (ODC'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 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 accomplished by tank crews so deliveries will be directly to tank units and no formal installation program is required nor is one shown below. 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

| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: | | PLANNED | ACCOMPLISHED |
|--|-----------|---------|--------------|
| Preliminary Design Review | - - - - - | 2Q97 | 2Q97 |
| Critical Design Review | - - - - - | 2Q98 | 2Q98 |
| Initial Operational Test & Eval. | - - - - - | 4Q98 | 4Q98 |
| IPR Production Decision | - - - - - | 2Q99 | |
| T D P Available | - - - - - | 3Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: By Units ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 4 Months
 Contract Dates: FY 1999 N/A FY 2000 JAN 00 FY 2001 JAN 01
 Delivery Date: FY 1999 N/A FY 2000 MAY 00 FY 2001 MAY 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Hand-Held Fire Extinguisher (HHFE) [MOD 13] 1-97-05-4525

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-----|---------|-----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | 7500 | | 7500 | | | | | | | | | | | | | 15000 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | 1.0 | | 1.0 | | | | | | | | | | | | | 1.9 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | 1.0 | | 1.0 | | | | | | | | | | | | | 1.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: M1A2 Field Mods (A2FM) [MOD 14] 1-97-05-4534

MODELS OF SYSTEMS AFFECTED:
M1A2 Only

DESCRIPTION / JUSTIFICATION:
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 and, therefore no installation schedule in the normal sense of the term. These upgrades will be applied to every fielded M1A2 tank as each is 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:

N / A

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Contractor Team **ADMINISTRATIVE LEADTIME:** 3 Months **PRODUCTION LEADTIME:** 6 Months
Contract Dates: FY 1999 FEB 99 FY 2000 FEB 00 FY 2001 FEB 01
Delivery Date: FY 1999 AUG 99 FY 2000 AUG 00 FY 2001 AUG 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): M1A2 Field Mods (A2FM) [MOD 14] 1-97-05-4534

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | 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 1998 & Prior Eqpt -- Kits | 2.1 | | | | | | | | | | | | | | | | | | | | 2.1 |
| FY 1999 Eqpt -- Kits | | | 0.8 | | | | | | | | | | | | | | | | | | 0.8 |
| FY 2000 Eqpt -- Kits | | | | | 1.4 | | | | | | | | | | | | | | | | 1.4 |
| FY 2001 Eqpt -- Kits | | | | | | | 1.5 | | | | | | | | | | | | | | 1.5 |
| FY 2002 Eqpt -- kits | | | | | | | | | 0.9 | | | | | | | | | | | | 0.9 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | 1.3 | | | | | | | | | | 1.3 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | 1.2 | | | | | | | | | 1.2 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | 1.0 | | | | | | | | 1.0 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | 3.0 | 3.0 |
| Total Installment | 2.1 | | 0.8 | | 1.4 | | 1.5 | | 0.9 | | 1.3 | | 1.2 | | 1.0 | | | | 3.0 | | 13.2 |
| Total Procurement Cost | 2.1 | | 0.8 | | 1.4 | | 1.5 | | 0.9 | | 1.3 | | 1.2 | | 1.0 | | | | 3.0 | | 13.2 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Matrix Support (MXSP) [MOD 15] OSIP NO 20

MODELS OF SYSTEMS AFFECTED: WHOLE FLEET

DESCRIPTION / JUSTIFICATION:
Matrix Support funds Government salaries in support of the entire Abrams Tank Modification program.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:
N / A

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|---------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|---------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: PM/PEO Initiative ADMINISTRATIVE LEADTIME: 0 Months PRODUCTION LEADTIME: 0 Months
 Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 N/A
 Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Matrix Support (MXSP) [MOD 15] OSIP NO 20

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | 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 | | 1.4 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | | 1.9 | | 7.5 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | 1.4 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | 0.6 | | | 1.9 | | 7.5 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: DU Armor [MOD 16] 1-98-05-4545

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1463, M1A2 = 0 TOTAL = 1463

DESCRIPTION / JUSTIFICATION:

Depleted Uranium [DU] Armor Package is a Classified Program.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

N / A (This is a continuation of the M1A2 Armor Program) 72 armor sets procured with M1A2 upgrade (SSN: GAO 750) funds will be installed with FY2004 funds.

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | 12 | 30 |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 30 | 30 | 30 | 30 | 30 | | | | | | | | | | | | 1271 | 1463 |
| Outputs | | 12 | 30 | 30 | 30 | 30 | 30 | | | | | | | | | | 1271 | 1463 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 13 Months
 Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 N/A
 Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): DU Armor [MOD 16] 1-98-05-4545

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|------|---------|------|---------|-------|-------|-------|-------|----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | 240 | | 120 | | 1103 | | | | 1463 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | 93.1 | | 48.0 | | 541.9 | | | | 683.0 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | 72 | 3.6 | 120 | 6.1 | 120 | 6.2 | 312 | 15.9 | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | 120 | 6.2 | 120 | 6.2 | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | 1103 | 64.9 | 1103 | 64.9 | | |
| Total Installment | | | | | | | | | | | | 72 | 3.6 | 120 | 6.1 | 1343 | 77.3 | 1535 | 87.0 | | |
| Total Procurement Cost | | | | | | | | | | | | 96.7 | | 54.1 | | 619.2 | | 770.0 | | | |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: M1A1-D [MOD 17] 1-98-05-4542

MODELS OF SYSTEMS AFFECTED: M1 = 0, IPM1 = 0, M1A1 = 1535, M1A2 = 0 TOTAL = 1535

DESCRIPTION / JUSTIFICATION:

This modification provides an integration kit for the Force XXI Battle Command Brigade and Below (FBCB2) into the M1A1 tank. Specifically, it buys the basic Integration Kit to install applique into the M1A1 tank. Beginning in FY00, it also buys the Applique Computer and provides a Far Target Designate capability for M1A1 tanks. For Far Target, 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 in the hardware contract.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|------|------|
| Preliminary Design Review | - | - | - | - | - | - | - | - | - | 2Q98 | 2Q98 |
| Contractor Test & Eval. | - | - | - | - | - | - | - | - | - | 3Q98 | 3Q98 |
| Critical Design Review | - | - | - | - | - | - | - | - | - | 4Q98 | 3Q98 |
| IPR Production Decision | - | - | - | - | - | - | - | - | - | 4Q98 | 3Q98 |
| ECP Available | - | - | - | - | - | - | - | - | - | 2Q99 | |
| TDP Available | - | - | - | - | - | - | - | - | - | 3Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | 15 | 30 | 22 | 23 | 22 | 23 | 27 | 28 | 27 | 28 | 28 | 29 | 29 | 29 | 28 | 29 | 29 | 29 |
| Outputs | | | 15 | 30 | 22 | 23 | 22 | 23 | 27 | 28 | 27 | 28 | 28 | 29 | 29 | 29 | 28 | 29 | 29 | 29 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 28 | 29 | 29 | 29 | 28 | 29 | 29 | 29 | | | | | | | | | 830 | 1535 |
| Outputs | 28 | 29 | 29 | 29 | 28 | 29 | 29 | 29 | | | | | | | | | 830 | 1535 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 4 Months

Contract Dates: FY 1999 JAN 99 FY 2000 JAN 00 FY 2001 JAN 01

Delivery Date: FY 1999 MAY 99 FY 2000 MAY 00 FY 2001 MAY 01

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): M1A1-D [MOD 17] 1-98-05-4542

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|-----|---------|-----|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|-------|-------|-------|-------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | 45 | | 90 | | 110 | | 115 | | 115 | | 115 | | 115 | | 180 | | 650 | | 1535 | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | 4.9 | | 0.3 | | 16.4 | | 25.2 | | 34.8 | | 23.3 | | 23.8 | | 34.0 | | 131.9 | | 294.6 | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | 45 | | | | | | | | | | | | | | | | | | 45 |
| FY 1999 Eqpt -- Kits | | | | | 90 | | | | | | | | | | | | | | | | 90 |
| FY 2000 Eqpt -- Kits | | | | | | | 110 | | | | | | | | | | | | | | 110 |
| FY 2001 Eqpt -- Kits | | | | | | | | | 115 | | | | | | | | | | | | 115 |
| FY 2002 Eqpt -- kits | | | | | | | | | | 115 | | | | | | | | | | | 115 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | 115 | | | | | | | | | | 115 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | 115 | | | | | | | | | 115 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | 115 | | | | | | | | 115 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 180 | | | | 180 |
| Total Installment | | | 45 | | 90 | | 110 | | 115 | | 115 | | 115 | | 115 | | 650 | | 1535 | | |
| Total Procurement Cost | 4.9 | | 0.3 | | 16.4 | | 25.2 | | 34.8 | | 23.3 | | 23.8 | | 34.0 | | 131.9 | | 294.6 | | |

INDIVIDUAL MODIFICATION

Date

MODIFICATION TITLE: Improved Turret Side Armor [MOD 18] 1-99-05-4555

MODELS OF SYSTEMS AFFECTED: M1A1=1535 and M1A2=767 - TOTAL= 2302

DESCRIPTION / JUSTIFICATION:

Improved Turret Side Armor is a completely passive special armor designed to improve RPG (Rocket Propelled Grenade) protection by 250% on the turret sides of the crew compartment. The new design will completely replace the current turret side armor and significantly enhance tank / crew operational capabilities and survivability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review - Planned 4Q98, Accomplished 4Q98; Contractor Test & Eval - Planned 2Q99; Critical Design Review - Planned 4Q99; IPR Production Decision - Planned 2Q00; and TDP Available - 4Q00.

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | 40 | 60 | 60 | 60 | | | | | | | | | 2082 | 2302 |
| Outputs | | | | | 40 | 60 | 60 | 60 | | | | | | | | | 2082 | 2302 |

METHOD OF IMPLEMENTATION: Contractor Team **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 13 Months
Contract Dates: FY 1999 N/A FY 2000 N/A FY 2001 N/A
Delivery Date: FY 1999 N/A FY 2000 N/A FY 2001 N/A

INDIVIDUAL MODIFICATION

Date

MODIFICATION TITLE (Cont): Improved Turret Side Armor [MOD 18] 1-99-05-4555

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|------|-------|-------|-------|----|------------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | | 220 | | 340 | | 1742 | | | | 2302 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | 24.6 | | 38.9 | | 214.2 | | | | 277.7 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | 220 | 12.6 | | | | | 220 12.6 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 2082 | 129.2 | | | 2082 129.2 |
| Total Installment | | | | | | | | | | | | | | | 220 | 12.6 | 2082 | 129.2 | | | 2302 141.8 |
| Total Procurement Cost | | | | | | | | | | | | | 24.6 | | 51.5 | | 343.4 | | | | 419.5 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 306 | 120 | 120 | 120 | 120 | 80 | 80 | 80 | 43 | 24 | | 1093 |
| Gross Cost | 1230.0 | 500.8 | 572.9 | 677.2 | 685.9 | 536.3 | 552.0 | 548.1 | 362.8 | 187.1 | 517.8 | 6370.9 |
| Less PY Adv Proc | 411.9 | 297.2 | 258.2 | 257.1 | 262.9 | 213.4 | 164.1 | 163.4 | 69.4 | 39.2 | | 2136.8 |
| Plus CY Adv Proc | 709.1 | 258.2 | 257.1 | 262.9 | 213.4 | 164.1 | 163.4 | 69.4 | 39.2 | | | 2136.8 |
| Net Proc (P-1) | 1527.2 | 461.7 | 571.8 | 683.0 | 636.4 | 486.9 | 551.4 | 454.1 | 332.5 | 148.0 | 517.8 | 6370.9 |
| Initial Spares | 21.4 | 9.5 | 13.4 | 9.8 | 9.8 | 15.0 | 23.7 | 25.5 | 25.7 | 26.5 | 27.0 | 207.1 |
| Total Proc Cost | 1548.6 | 471.2 | 585.2 | 692.8 | 646.2 | 501.9 | 575.1 | 479.6 | 358.2 | 174.4 | 544.8 | 6578.0 |
| Flyaway U/C | 3.6 | 3.6 | 3.9 | 5.0 | 5.3 | 5.9 | 6.0 | 6.0 | 6.8 | 6.7 | | |
| Wpn Sys Proc U/C | 4.1 | 4.3 | 4.9 | 5.7 | 5.8 | 6.9 | 7.2 | 7.2 | 9.0 | 8.9 | | |

DESCRIPTION: The Abrams Tank Upgrade Program supports the Department of Army vision for the future. The Upgrade Program reconfigures 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, the M1A2 System Enhancement Program (SEP) with 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 WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|---|--|---------------|-------|--|---------------|-------|---------------------|---------------|-------|------------------------|---------------|-------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | 270068 | 120 | 2251 | 296609 | 120 | 2472 | 302383 | 120 | 2520 | 235360 | 80 | 2942 |
| 2. Armor | | | 35463 | 121 | 293 | 40186 | 122 | 329 | 53323 | 121 | 441 | 48776 | 120 | 406 |
| 3. H/TEU | | | 6731 | 240 | 28 | | | | | | | | | |
| 4. Engine (DECU)/EMFS/Refur | | | 4024 | 120 | 34 | 16230 | 120 | 135 | 16587 | 120 | 138 | 11712 | 80 | 146 |
| 5. Transmission | | | 23496 | 120 | 196 | 24252 | 120 | 202 | 24773 | 120 | 206 | 16873 | 80 | 211 |
| 6. Final Drive | | | 1370 | 240 | 6 | 1372 | 240 | 6 | 1950 | 240 | 8 | 1404 | 160 | 9 |
| 7. Fire Control | | | 38393 | 120 | 320 | 1887 | 120 | 16 | 1925 | 120 | 16 | 2038 | 80 | 25 |
| 8. Track | | | 5674 | 18720 | | 5142 | 18720 | | 5252 | 18720 | | 3577 | 12480 | |
| 9. Roadwheels | | | 1417 | 3840 | | 1424 | 3840 | | 1455 | 3840 | | 991 | 2560 | |
| 10. Gun Mounts | | | 2551 | 60 | 43 | 2526 | 60 | 42 | 2526 | 60 | 42 | 1792 | 40 | 45 |
| 11. Gun | | | 10991 | 120 | 92 | 14677 | 120 | 122 | 24600 | 120 | 205 | 16911 | 80 | 211 |
| 12. Driver's Night Viewer | | | 657 | 120 | 5 | 661 | 120 | 6 | 675 | 120 | 6 | 460 | 80 | 6 |
| 13. Basic Issue Items | | | 769 | 120 | 6 | 915 | 120 | 8 | 930 | 120 | 8 | 659 | 80 | 8 |
| 14. MILSTRIPS/RIK | | | 710 | 120 | 6 | 1217 | 120 | 10 | 1237 | 120 | 10 | 838 | 80 | 10 |
| 15. VIS | | | 1065 | 120 | 9 | 1247 | 120 | 10 | 1274 | 120 | 11 | 899 | 80 | 11 |
| 16. Special Tools & Test Sets | | | 18400 | | | 19600 | | | 21200 | | | 13800 | | |
| 17. Contract Engineering | | | 92375 | | | 68261 | | | 45585 | | | 46759 | | |
| 18. Project Mgt Administration | | | 1751 | | | 2316 | | | 2354 | | | 2393 | | |
| 19. Matrix Support | | | 4878 | | | 5407 | | | 5496 | | | 5587 | | |
| 20. Auxiliary Services | | | 300 | | | 300 | | | 5064 | | | 5371 | | |
| 21. Engineering Support | | | 3731 | | | 4135 | | | 4203 | | | 4272 | | |
| 22. Quality Support | | | 946 | | | 1049 | | | 1066 | | | 1084 | | |
| 23. Testing | | | 3800 | | | 8107 | | | 11650 | | | 8803 | | |
| 24. Transportation (FDT) | | | 409 | | | 412 | | | 419 | | | 284 | | |
| 25. Total Package Fielding | | | 8609 | | | 8682 | | | 8824 | | | 5981 | | |
| 26. II Gen FLIR | | | 9030 | | | 105693 | 120 | 881 | 91288 | 120 | 761 | 57047 | 80 | 713 |
| 27. C2 (STS & H/W) | | | 1038 | | | 5700 | | | 6150 | | | 10150 | | |
| 28. Pre Mod Depot Maint | | | 24227 | 120 | 202 | 15173 | 120 | 126 | 15387 | 120 | 128 | 10425 | 80 | 130 |
| 29. Industrial Base/"Shut-Down | | | | | | | | | | | | | | |
| 30. NonRecurring Cost (Pilots,GFE Seed,IPT | | | | | | | | | | | | | | |
| 31. Service Life Extension (SLE) | | | | | | | | | | | | | | |
| 35. GDLS SMI/Armor ECP | | | | | | 24034 | 120 | 200 | 28362 | 120 | 236 | 22036 | 80 | 275 |
| Gross P-1 End Cost | | | 572873 | 120 | 4774 | 677214 | 120 | 5643 | 685938 | 120 | 5716 | 536282 | 80 | 6704 |
| Less: Prior Year Adv Proc | | | 258171 | | | 257118 | | | 262942 | | | 213406 | | |
| Net P-1 Full Funding Cost | | | 314702 | | | 420096 | | | 422996 | | | 322876 | | |
| Plus: P-1 CY Adv Proc | | | 257118 | | | 262942 | | | 213406 | | | 164054 | | |
| Other Non P-1 Costs | | | | | | | | | | | | | | |
| Initial Spares | | | 13351 | | | 9774 | | | 9756 | | | 14951 | | |
| Mods | | | | | | | | | | | | | | |
| TOTAL | | | 585171 | | | 692812 | | | 646158 | | | 501881 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: | 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 98 | GDLS/1 | /2(3) | TACOM-Warren | Feb-98 | Aug-98 | 120 | 2251 | Yes | | Jan 95 | |
| FY 99 | GDLS/1 | /2(4) | TACOM-Warren | Feb-99 | Aug-99 | 120 | 2472 | Yes | | Jan 95 | |
| FY 00 | GDLS/1 | /2(5) | TACOM-Warren | Feb-00 | Aug-00 | 120 | 2520 | Yes | | Jan 95 | |
| FY 01 | GDLS/1 | SS/FFP | TACOM-Warren | Feb-01 | Aug-01 | 80 | 2942 | Yes | | Sep 99 | |
| 2. Armor/3 | | | | | | | | | | | |
| FY 98 | LITCO/4 | SS/CPFF | DOE/5 | Dec-96 | Feb-98 | 121 | 293 | NA | | NA | |
| FY 99 | LITCO/4 | SS/CPFF | DOE/5 | Jan-98 | Feb-99 | 122 | 329 | NA | | NA | |
| FY 00 | LITCO/4 | SS/CPFF | DOE/5 | Jan-99 | Feb-00 | 121 | 441 | NA | | NA | |
| FY 01 | LITCO/4 | SS/CPFF | DOE/5 | Jan-00 | Feb-01 | 120 | 406 | NA | | NA | |
| 3. H/TEU | | | | | | | | | | | |
| FY 98 | GDLS/1 | Option | TACOM-ACALA | Mar-97 | Feb-98 | 240 | 28 | Yes | | Feb 96 | |
| 4. Engine (DECU)/EMFS/Refur/6 | | | | | | | | | | | |
| FY 98 | Allied/Signal/7 | Option | TACOM-Warren | Apr-97 | Feb-98 | 120 | 34 | Yes | | Aug 94 | |
| FY 99 | Allied/Signal/7 | SS/FFP/C | TACOM-Warren | Feb-98 | Feb-99 | 120 | 135 | Yes | | Sep 97 | |
| FY 00 | Allied/Signal/7 | Option | TACOM-Warren | Jan-99 | Feb-00 | 120 | 138 | Yes | | Sep 97 | |
| FY 01 | Allied/Signal/7 | Option | TACOM-Warren | Feb-00 | Feb-01 | 80 | 146 | Yes | | Sep 97 | |
| 5. Transmission | | | | | | | | | | | |
| FY 98 | Allison Transmission Div/8 | S/FFP/C | TACOM-Warren | Sep-97 | Feb-98 | 120 | 196 | Yes | | Dec 96 | |
| FY 99 | Allison Transmission Div/8 | Option | TACOM-Warren | Feb-98 | Feb-99 | 120 | 202 | Yes | | Dec 96 | |
| FY 00 | Allison Transmission Div/8 | Option | TACOM-Warren | Feb-99 | Feb-00 | 120 | 206 | Yes | | Dec 96 | |
| FY 01 | Allison Transmission Div/8 | S/FFP/C | TACOM-Warren | Jul-00 | Feb-01 | 80 | 211 | Yes | | Jun 99 | |

REMARKS: /1. General Dynamics Land System, Warren, MI /8. Allison Transmission Div, GM Corp, Indianapolis, IN
 /2. SS/FFP/M5
 /3. Armor Production leads tank production
 /4. Lockheed Idaho Technologies Co, Idaho Fall, ID
 /5. Department of Energy
 /6. Awards are against a Navy BOA Contract therefore no RFP issued only letter with new requirements
 /7. AlliedSignal/Control & Accessories, Tucson, AZ

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| 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: | 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 98 | LOC Performance, Inc/1 | Option | TACOM-Warren | Sep-97 | Feb-98 | 240 | 6 | Yes | | Apr 95 |
| FY 99 | LOC Performance, Inc/1 | Option | TACOM-Warren | Dec-97 | Feb-99 | 240 | 6 | Yes | | Apr 95 |
| FY 00 | LOC Performance, Inc/1 | C/FFP | TACOM-Warren | Dec-98 | Feb-00 | 240 | 8 | Yes | | May 98 |
| FY 01 | LOC Performance, Inc/1 | Option | TACOM-Warren | Dec-99 | Feb-01 | 160 | 9 | Yes | | May 98 |
| 7. Fire Control | | | | | | | | | | |
| FY 98 | Hughes/2/Variou | Various | TACOM-Warren | Var | Feb-98 | 120 | 320 | Yes | | Var |
| FY 99 | Hughes/2/Variou | Various | TACOM-Warren | Var | Feb-99 | 120 | 16 | Yes | | Var |
| FY 00 | Hughes/2/Variou | Various | TACOM-Warren | Var | Feb-00 | 120 | 16 | Yes | | Var |
| FY 01 | Hughes/2/Variou | Various | TACOM-Warren | Var | Feb-01 | 80 | 25 | Yes | | Var |
| 8. Track | | | | | | | | | | |
| 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 | May-98 | Feb-99 | 18720 | | Yes | | Dec 97 |
| FY 00 | Goodyear Tire & Rubber/3 | Option | TACOM-Warren | Mar-99 | Feb-00 | 18720 | | Yes | | Dec 97 |
| FY 01 | Goodyear Tire & Rubber/3 | Option | TACOM-Warren | Mar-00 | Feb-01 | 12480 | | Yes | | Dec 97 |
| 9. Roadwheels | | | | | | | | | | |
| 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 | Jan-98 | Feb-99 | 3840 | | Yes | | Sep 95 |
| FY 00 | TBD | /5 | TACOM-Warren | May-00 | Feb-00 | 3840 | | Yes | | Sep 98 |
| FY 01 | TBD | /5 | TACOM-Warren | Jan-00 | Feb-01 | 2560 | | Yes | | Sep 98 |

REMARKS:
 /1. Loc Performance, Inc, Plymouth, Mi
 /2. Hughes Aircraft, El Segundo, CA
 /3. Goodyear Tire & Rubber Co., Akron, OH
 /4. B&C Corp, Barberton, OH
 /5. Requirement Contract/FFP

Exhibit P-5a, Budget Procurement History and Planning

Date:

February 1999

| 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: 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 | | | | | | | | | | |
| FY 98 | RIA/1 | WR | | Feb-97 | Feb-98 | 60 | 43 | Yes | | NA |
| FY 99 | RIA/1 | WR | | Apr-98 | Feb-99 | 60 | 42 | Yes | | NA |
| FY 00 | RIA/1 | WR | | Apr-99 | Feb-00 | 60 | 42 | Yes | | NA |
| FY 01 | RIA/1 | WR | | Apr-00 | Feb-01 | 40 | 45 | Yes | | NA |
| 11. Gun | | | | | | | | | | |
| FY 98 | Watervliet Arsenal | WR | | Mar-97 | Feb-98 | 120 | 92 | Yes | | NA |
| FY 99 | Watervliet Arsenal | WR | | Mar-98 | Feb-99 | 120 | 122 | Yes | | NA |
| FY 00 | Watervliet Arsenal | WR | | Mar-99 | Feb-00 | 120 | 205 | Yes | | NA |
| FY 01 | Watervliet Arsenal | WR | | Mar-00 | Feb-01 | 80 | 211 | Yes | | NA |
| 12. Driver's Night Viewer | | | | | | | | | | |
| FY 98 | CECOM NICP | REQ | | Jan-97 | Feb-98 | 120 | 5 | Yes | | NA |
| FY 99 | CECOM NICP | REQ | | Sep-98 | Feb-99 | 120 | 6 | Yes | | NA |
| FY 00 | CECOM NICP | REQ | | Jul-99 | Feb-00 | 120 | 6 | Yes | | NA |
| FY 01 | CECOM NICP | REQ | | Jul-00 | Feb-01 | 80 | 6 | Yes | | NA |
| 13. Basic Issue Items | | | | | | | | | | |
| FY 98 | TACOM-ACALA | WR | | Feb-97 | Feb-98 | 120 | 6 | Yes | | NA |
| FY 99 | TACOM-ACALA | WR | | Jun-98 | Feb-99 | 120 | 8 | Yes | | NA |
| FY 00 | TACOM-ACALA | WR | | Jun-99 | Feb-00 | 120 | 8 | Yes | | NA |
| FY 01 | TACOM-ACALA | WR | | Jun-01 | Feb-01 | 80 | 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: February 1999

| 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: 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 98 | NA | REQ/WR | | Various | Feb-98 | 120 | 6 | Yes | | NA |
| FY 99 | NA | REQ/WR | | Various | Feb-99 | 120 | 10 | Yes | | NA |
| FY 00 | NA | REQ/WR | | Various | Feb-00 | 120 | 10 | Yes | | NA |
| FY 01 | NA | REQ/WR | | Various | Feb-01 | 80 | 10 | Yes | | NA |
| 15. VIS/1 | | | | | | | | | | |
| FY 98 | Grumman/2 | Option | CECOM | Apr-97 | Feb-98 | 120 | 9 | Yes | | Sep 91 |
| FY 99 | Grumman/2 | Option | CECOM | Apr-98 | Feb-99 | 120 | 10 | Yes | | Sep 91 |
| FY 00 | Grumman/2 | Option | CECOM | Apr-99 | Feb-00 | 120 | 11 | Yes | | Sep 91 |
| FY 01 | Grumman/2 | Option | CECOM | Apr-00 | Feb-01 | 80 | 11 | Yes | | Sep 91 |
| 26. II Gen FLIR | | | | | | | | | | |
| FY 99 | Various | SS/FFP | CECOM | Nov-97 | Feb-99 | 120 | 881 | Yes | | Sep 96 |
| FY 00 | Various | Option | CECOM | Dec-98 | Feb-00 | 120 | 761 | Yes | | Sep 96 |
| FY 01 | Various | Option | CECOM | Nov-99 | Feb-01 | 80 | 713 | Yes | | Sep 96 |
| 35. GDLS SMI/Armor ECP | | | | | | | | | | |
| FY 99 | GDLS/3 | /4(4) | TACOM-Warren | Feb-99 | Aug-99 | 120 | 200 | N/A | | N/A |
| FY 00 | GDLS/3 | /4(5) | TACOM-Warren | Feb-00 | Aug-00 | 120 | 236 | N/A | | N/A |
| FY 01 | GDLS/3 | SS/FFP | TACOM-Warren | Feb-01 | Aug-01 | 80 | 275 | N/A | | N/A |

REMARKS:
 /1. VIS, Vehicular Intercommunication System
 /2. Grumman Aerospace Corp, Bethpage, NY
 /3. General Dynamics Land Systems, Warren, MI
 /4. SS/FFP/M5

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: ABRAMS UPGRADE PROGRAM (GA0750) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | | |
|---------------------------------------|-----|---------|------|---------------|-----------------------|---------------------|---|-----|-----|-----|-----|-----|------------------|-----|-----|-----|-----|-----|------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|--|
| 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 | | | | | | 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 | 97 & Pr | A | 426 | 326 | 100 | 11 | 9 | 8 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 6 | | | | | | | | | | | | | | | |
| | 1 | FY 98 | A | 120 | 0 | 120 | | | | | | | | | | | 10 | 10 | 11 | 9 | 8 | 10 | 11 | 12 | 11 | 11 | 11 | 6 | | | | |
| | 1 | FY 99 | A | 120 | 0 | 120 | | | | | | | | | | | | | | | | | A | | | | | | 11 | 10 | 99 | |
| | 1 | FY 00 | A | 120 | 0 | 120 | | | | | | | | | | | | | | | | | | | | | | | | 120 | | |
| | 1 | FY 01 | A | 80 | 0 | 80 | | | | | | | | | | | | | | | | | | | | | | | | 80 | | |
| | 1 | FY02 | A | 80 | 0 | 80 | | | | | | | | | | | | | | | | | | | | | | | | 80 | | |
| | 1 | FY03 | A | 80 | 0 | 80 | | | | | | | | | | | | | | | | | | | | | | | | 80 | | |
| | 1 | FY04 | A | 43 | 0 | 43 | | | | | | | | | | | | | | | | | | | | | | | | 43 | | |
| | 1 | FY05 | A | 24 | 0 | 24 | | | | | | | | | | | | | | | | | | | | | | | | 24 | | |

| 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. LATP is interdependent and does not stand alone. |
| | | | | | | | REORDER | 0 | 3 | 14 | 17 | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | 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 | | 258.2 | 257.1 | 262.9 | 213.4 | 164.1 | 163.4 | 69.4 | 39.2 | 0.0 | | 1427.7 |
| Net Proc (P-1) | | 258.2 | 257.1 | 262.9 | 213.4 | 164.1 | 163.4 | 69.4 | 39.2 | 0.0 | 0.0 | 1427.7 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 258.2 | 257.1 | 262.9 | 213.4 | 164.1 | 163.4 | 69.4 | 39.2 | 0.0 | 0.0 | 1427.7 |
| 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.

| Advance Procurement Requirements Analysis-Funding (P-10A) | | | | First System Award Date: Feb 00 | | | | First System Completion Date: Aug 00 | | | | Date: February 1999 | | | |
|---|--------------|----------------------|--------|------------------------------------|-------|---|-------|---|-------|------|------|------------------------|------------|--------|--|
| Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD COMBT VEHS/1/TRACKED COMBAT VEHICLES | | | | | | P-1 Line Item Nomenclature / Weapon System: ABRAMS UPGRADE PROGRAM (ADV PROC) (GA0750) | | | | | | | | | |
| (\$ in Millions) | | | | | | | | | | | | | | | |
| | PLT (mos) | When Rqd (mos) | Pr Yrs | FY97 | FY98 | FY99 | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | To Comp | Total | |
| End Item Quantity: | * | | | 120 | 120 | 120 | 80 | 80 | 80 | 43 | 24 | | | | |
| 1. Basic Vehicle | 18 | 6 | | 143.0 | 0.6 | 21.5 | 15.6 | 19.5 | 3.8 | 1.0 | 0.5 | | | 205.5 | |
| 1.1 Termination Liability | | | | | 86.8 | 73.3 | 79.2 | 56.6 | 73.7 | 20.1 | 15.9 | | | 405.6 | |
| 2. Armor | 19 | 6 | | 9.8 | 10.0 | 10.2 | 11.3 | 11.5 | 11.7 | 10.0 | | | | 74.6 | |
| 3. H/TEU | 13 | 6 | | 6.7 | | | | | | | | | | 6.7 | |
| 4. Engine (DECU)/EMFS/Refur | 20 | 6 | | 3.1 | 16.4 | 15.4 | 10.8 | 5.6 | 5.7 | 2.6 | 1.5 | | | 60.9 | |
| 5. Transmission | 19 | 6 | | 23.4 | 24.1 | 24.6 | 16.8 | 8.6 | 8.8 | 3.6 | 2.1 | | | 112.1 | |
| 6. Final Drives | 16 | 6 | | 1.4 | 1.4 | 1.9 | 1.4 | 0.7 | 0.7 | 0.3 | 0.2 | | | 8.0 | |
| 7. Fire Control | 16 | 6 | | 38.8 | 1.8 | 1.4 | 1.5 | 0.8 | 0.8 | 0.4 | 0.2 | | | 45.6 | |
| 8. Track | 19 | 6 | | 5.7 | 5.1 | 5.2 | 3.6 | 1.8 | 1.9 | 0.8 | 0.4 | | | 24.5 | |
| 9. Roadwheels | 16 | 6 | | 1.4 | 1.4 | 1.4 | 1.0 | 0.5 | 0.5 | 0.2 | 0.1 | | | 6.6 | |
| 10. Gun Mounts | 16 | 6 | | 2.6 | 2.5 | 2.5 | 1.8 | 0.9 | 0.9 | 0.4 | 0.2 | | | 11.9 | |
| 11. Gun | 16 | 6 | | 10.5 | 14.1 | 23.6 | 16.2 | 8.2 | 8.4 | 3.8 | 2.2 | | | 87.2 | |
| 12. Driver's Night Viewer | 13 | 6 | | 0.6 | 0.6 | 0.5 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 | | | 2.6 | |
| 13. Basic Issue Items | 16 | 6 | | 0.8 | 0.9 | 0.9 | 0.7 | 0.3 | 0.3 | 0.2 | 0.1 | | | 4.2 | |
| 14. MILSTRIPS/RIK | 16 | 6 | | 0.4 | 0.4 | 0.9 | 0.6 | 0.3 | 0.3 | 0.1 | 0.1 | | | 3.1 | |
| 15. VIS | 16 | 6 | | 1.0 | 1.3 | 1.2 | 0.8 | 0.4 | 0.4 | 0.2 | 0.1 | | | 5.5 | |
| 26. II Gen FLIR | 20 | 8 | | 9.0 | 84.3 | 75.0 | 49.2 | 46.9 | 44.0 | 25.1 | 15.2 | | | 348.8 | |
| 35. GDLS SMI/Armor ECP Del | | | | | 5.4 | 3.2 | 2.5 | 1.2 | 1.2 | 0.5 | 0.3 | | | 14.4 | |
| Total Advance Procurement | | | | 258.2 | 257.1 | 262.9 | 213.4 | 164.1 | 163.4 | 69.4 | 39.2 | | | 1427.7 | |
| <p>Description:</p> <p>* 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.</p> | | | | | | | | | | | | | | | |

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 1999

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 (mos) | Quantity Per Assembly | Unit Cost | 2000 | | | 2001 | | |
| | | | | Qty | Contract Forecast Date | Total Cost Request | Qty | Contract Forecast Date | Total Cost Request |
| End Item | * | | | | | | | | |
| 1. Basic Vehicle | 18 | 1 | 0.2 | 80 | Various | 15.6 | 80 | Various | 19.5 |
| 1.1 Termination Liability | | | | | | 79.2 | | | 56.6 |
| 2. Armor | 19 | 1 | 0.1 | 120 | Jan 00 | 11.3 | 121 | Jan 01 | 11.5 |
| 3. H/TEU | 13 | | | | | | | | |
| 4. Engine (DECU)/EMFS/Refur | 20 | 1 | 0.1 | 80 | Feb 00 | 10.8 | 80 | Feb 01 | 5.6 |
| 5. Transmission | 19 | 1 | 0.2 | 80 | Jul 00 | 16.8 | 80 | Jul 01 | 8.6 |
| 6. Final Drives | 16 | 2 | 0.0 | 160 | Dec 99 | 1.4 | 160 | Dec 00 | 0.7 |
| 7. Fire Control | 16 | 1 | 0.0 | 80 | Various | 1.5 | 80 | Various | 0.8 |
| 8. Track | 19 | 156 | 0.0 | 12480 | Dec 00 | 3.6 | 12480 | Dec 01 | 1.8 |
| 9. Roadwheels | 16 | 32 | 0.0 | 2560 | Jan 00 | 1.0 | 2560 | Jan 01 | 0.5 |
| 10. Gun Mounts | 16 | 1 | 0.0 | 40 | Apr 00 | 1.8 | 40 | Apr 01 | 0.9 |
| 11. Gun | 16 | 1 | 0.2 | 80 | Mar 00 | 16.2 | 80 | Mar 01 | 8.2 |
| 12. Driver's Night Viewer | 13 | 1 | 0.0 | 80 | Jul 00 | 0.3 | 80 | Jul 01 | 0.2 |
| 13. Basic Issue Items | 16 | 1 | 0.0 | 80 | Sep 00 | 0.7 | 80 | Sep 01 | 0.3 |
| 14. MILSTRIPS/RIK | 16 | 1 | 0.0 | 80 | Various | 0.6 | 80 | Various | 0.3 |
| 15. VIS | 16 | 1 | 0.0 | 80 | Apr 00 | 0.8 | 80 | Apr 01 | 0.4 |
| 26. II Gen FLIR | 20 | 1 | 0.6 | 80 | Nov 99 | 49.2 | 80 | Nov 00 | 46.9 |
| 35. GDLS SMI/Armor ECP Del | | | | | | 2.5 | | | 1.2 |
| Total Advance Procurement | | | | | | 213.4 | | | 164.1 |

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-Present Value Analysis (P-10C)

Date: February 1999

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) | | | | | | | | | | | | |
|--------------------------------|--------|------|------|------|------|------|------|------|------|------|---------|-------|
| | Pr Yrs | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | To Comp | Total |
| Proposal w/o AP | | | | | | | | | | | | |
| Then Year Cost | 1230 | 501 | 573 | 677 | 686 | 536 | 552 | 548 | 363 | 187 | 538 | 6391 |
| Constant Year Cost | 1280 | 508 | 574 | 673 | 670 | 515 | 521 | 507 | 329 | 166 | 450 | 6193 |
| Present Value | 1458 | 544 | 598 | 682 | 661 | 494 | 486 | 460 | 291 | 143 | 360 | 6177 |
| AP Proposal | | | | | | | | | | | | |
| Then Year Cost | 1527 | 462 | 572 | 683 | 636 | 487 | 551 | 454 | 333 | 148 | 538 | 6391 |
| Constant Year Cost | 1611 | 468 | 573 | 678 | 622 | 468 | 520 | 420 | 302 | 131 | 450 | 6243 |
| Present Value | 1875 | 501 | 597 | 687 | 613 | 449 | 485 | 381 | 267 | 113 | 360 | 6328 |
| AP Savings (Difference) | | | | | | | | | | | | |
| Then Year Cost | 297 | -39 | -1 | 6 | -50 | -49 | -1 | -94 | -30 | -39 | | |
| Constant Year Cost | 331 | -40 | -1 | 5 | -48 | -47 | -1 | -87 | -27 | -35 | | 50 |
| Present Value | 417 | -43 | -1 | 5 | -48 | -45 | -1 | -79 | -24 | -30 | | 151 |

Remarks:

| Advance Procurement Requirements Analysis-Execution (P-10D) | | | | | | | | | | | | | Date: February 1999 | | | |
|--|-----------|-------|------------------------|----------------------|--------------------|----------------------|---|------------------------|----------------------|--------------------|----------------------|-------|------------------------|-------|------------------------|--|
| 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 (mos) | 1998 | | | | | 1999 | | | | | 2000 | | 2001 | | |
| | | Qty | Contract Forecast Date | Actual Contract Date | Total Cost Request | Actual Contract Cost | Qty | Contract Forecast Date | Actual Contract Date | Total Cost Request | Actual Contract Cost | Qty | Contract Forecast Date | Qty | Contract Forecast Date | |
| End Item | * | | | | | | | | | | | | | | | |
| 1. Basic Vehicle | 18 | 120 | Various | | 0.6 | | 120 | Various | | 21.5 | | 80 | Various | 80 | Various | |
| 1.1 Termination Liability | | | | | 86.8 | | | | | 73.3 | | | | | | |
| 2. Armor | 19 | 120 | Feb 98 | | 10.0 | | 120 | Jan 99 | | 10.2 | | 120 | Jan 00 | 121 | Jan 01 | |
| 3. H/TEU | 13 | | | | | | | | | | | | | | | |
| 4. Engine (DECU)/EMFS/Refur | 20 | 120 | Jan 98 | | 16.4 | | 120 | Jun 99 | | 15.4 | | 80 | Feb 00 | 80 | Feb 01 | |
| 5. Transmission | 19 | 120 | Feb 98 | Feb 98 | 24.1 | 24.1 | 120 | Feb 99 | | 24.6 | | 80 | Jul 00 | 80 | Jul 01 | |
| 6. Final Drives | 16 | 240 | Jan 98 | Jan 98 | 1.4 | 1.4 | 240 | Dec 98 | Dec 98 | 1.9 | 1.9 | 160 | Dec 99 | 160 | Dec 00 | |
| 7. Fire Control | 16 | 120 | Various | | 1.8 | | 120 | Var | | 1.4 | | 80 | Various | 80 | Various | |
| 8. Track | 19 | 18720 | Apr 98 | May 98 | 5.1 | 5.1 | 18720 | Mar 99 | | 5.2 | | 12480 | Dec 00 | 12480 | Dec 01 | |
| 9. Roadwheels | 16 | 3840 | Apr 98 | Jan 98 | 1.4 | 1.4 | 3840 | May 99 | | 1.4 | | 2560 | Jan 00 | 2560 | Jan 01 | |
| 10. Gun Mounts | 16 | 60 | Apr 98 | Apr 98 | 2.5 | 2.5 | 60 | Apr 99 | | 2.5 | | 40 | Apr 00 | 40 | Apr 01 | |
| 11. Gun | 16 | 120 | Apr 98 | | 14.1 | | 120 | Mar 99 | | 23.6 | | 80 | Mar 00 | 80 | Mar 01 | |
| 12. Driver's Night Viewer | 13 | 120 | Jul 98 | | 0.6 | | 120 | Jul 99 | | 0.5 | | 80 | Jul 00 | 80 | Jul 01 | |
| 13. Basic Issue Items | 16 | 120 | Apr 98 | Jun 98 | 0.9 | 0.9 | 120 | Jun 99 | | 0.9 | | 80 | Sep 00 | 80 | Sep 01 | |
| 14. MILSTRIPS/RIK | 16 | 120 | Various | | 0.4 | | 120 | Various | | 0.9 | | 80 | Various | 80 | Various | |
| 15. VIS | 16 | 120 | Jun 98 | Apr 98 | 1.3 | 1.3 | 120 | Apr 99 | | 1.2 | | 80 | Apr 00 | 80 | Apr 01 | |
| 26. II Gen FLIR | 20 | 120 | Various | | 84.3 | | 120 | Nov 99 | | 75.0 | | 80 | Nov 99 | 80 | Nov 00 | |
| 35. GDLS SMI/Armor ECP Del | | | | | 5.4 | | | Feb 99 | | 3.2 | | | | | | |
| Total Advance Procurement | | | | | 257.1 | 36.7 | | | | 262.9 | 1.9 | | | | | |

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-Obligations/Expenditures (P-10E)

Date: February 1999

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 98 | | | | | | | | | | | | Total Ob/Exp (Cum) | Ending Balance (Cum) | |
|----------------------------|------------------|-------|-----|-----|------|-----|-----|-----|-----|------|------|------|------|--------------------|----------------------|--|
| | | 1997 | | | 1998 | | | | | | | | | | | |
| | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | | | |
| FY 98 | | | | | | | | | | | | | | | | |
| Termination Liability Sche | 86.8 | | .2 | .1 | 3.0 | 2.6 | 3.5 | 6.1 | 7.5 | 10.1 | 11.7 | 12.6 | 14.1 | 71.4 | 15.4 | |
| Total Expenditures | 257.1 | | | | | | | .2 | 1.0 | 5.8 | 2.9 | | | 10.0 | 247.2 | |
| FY 99 | | | | | | | | | | | | | | | | |
| Termination Liability Sche | 73.3 | | | | | | | | | | | | | | 73.3 | |
| Total Expenditures | 262.9 | | | | | | | | | | | | | | 262.9 | |
| FY 00 | | | | | | | | | | | | | | | | |
| Termination Liability Sche | 79.2 | | | | | | | | | | | | | | 79.2 | |
| FY 01 | | | | | | | | | | | | | | | | |
| Termination Liability Sche | 56.6 | | | | | | | | | | | | | | 56.6 | |

Narrative: The requirements for all elements of cost are based on prior history and lead times. The procurement for the DECU's, Transmissions, Final Drives, Fire Control, Track, Roadwheels, VIS, II GEN FLIR are Firm Fixed Price Contracts and have no termination liability profile within the contract. The funding is required to purchase hardware in time to reduce the overall procurement leadtime of the M1A2 Abrams major end item.

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 1999

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 |
| FY 98 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 15.4 | 15.4 | | | | | | | | | | | | 15.4 | .0 |
| Total Expenditures | 247.2 | 2.5 | 4.3 | 7.2 | .5 | | | | | | | | | 14.5 | 232.6 |
| FY 99 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 73.3 | | | .2 | .2 | .3 | .3 | 2.3 | 4.1 | 7.3 | 8.2 | 9.3 | 9.0 | 41.2 | 32.1 |
| Total Expenditures | 262.9 | | | | | | | | | | | | | | 262.9 |
| FY 00 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 79.2 | | | | | | | | | | | | | | 79.2 |
| FY 01 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 56.6 | | | | | | | | | | | | | | 56.6 |

Narrative:

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 1999

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 00 | | | | | | | | | | | Total Ob/Exp (Cum) | Ending Balance (Cum) | |
|----------------------------|------------------|-------|-----|------|------|-----|-----|-----|-----|-----|-----|------|--------------------|----------------------|-------|
| | | 1999 | | | 2000 | | | | | | | | | | |
| | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | | | Sep |
| FY 98 | | | | | | | | | | | | | | | |
| Termination Liability Sche | .0 | | | | | | | | | | | | | | .0 |
| Total Expenditures | 247.2 | | | | | | | | | | | | | | 247.2 |
| FY 99 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 32.1 | 10.6 | 9.6 | 11.9 | | | | | | | | | | 32.1 | |
| Total Expenditures | 262.9 | | | | | | | | | | | | | | 262.9 |
| FY 00 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 79.2 | | | | | | | 3.6 | 4.4 | 7.8 | 8.9 | 10.1 | 9.7 | 44.5 | 34.7 |
| FY 01 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 56.6 | | | | | | | | | | | | | | 56.6 |

Narrative:

| Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E) | | | | | | | | | | | | | Date: February 1999 | | |
|--|------------------|-------|------|------|------|-----|---|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| 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 01 | | | | | | | | | | | Total Ob/Exp (Cum) | Ending Balance (Cum) | |
| | | 2000 | | | 2001 | | | | | | | | | | |
| | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | | |
| FY 98 | | | | | | | | | | | | | | | |
| Termination Liability Sche | .0 | | | | | | | | | | | | | | .0 |
| Total Expenditures | 247.2 | | | | | | | | | | | | | | 247.2 |
| FY 99 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 262.9 | | | | | | | | | | | | | | 262.9 |
| Total Expenditures | | | | | | | | | | | | | | | |
| FY 00 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 34.7 | 11.5 | 10.4 | 12.8 | | | | | | | | | | 34.7 | .0 |
| FY 01 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 56.6 | | | | | | 3.0 | 3.7 | 6.7 | 7.6 | 8.6 | 8.3 | 37.9 | 18.6 | |
| Narrative: | | | | | | | | | | | | | | | |

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 1999

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 02 | | | | | | | | | | | Total Obl/Exp (Cum) | Ending Balance (Cum) | |
|----------------------------|------------------|-------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|---------------------|----------------------|-------|
| | | 2001 | | | 2002 | | | | | | | | | | |
| | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | | | Sep |
| FY 98 | | | | | | | | | | | | | | | |
| Termination Liability Sche | .0 | | | | | | | | | | | | | | .0 |
| Total Expenditures | 247.2 | | | | | | | | | | | | | | 247.2 |
| FY 99 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 262.9 | | | | | | | | | | | | | | 262.9 |
| Total Expenditures | 262.9 | | | | | | | | | | | | | | 262.9 |
| FY 00 | | | | | | | | | | | | | | | |
| Termination Liability Sche | .0 | | | | | | | | | | | | | | .0 |
| FY 01 | | | | | | | | | | | | | | | |
| Termination Liability Sche | 18.6 | 9.8 | 8.9 | | | | | | | | | | | 18.6 | |

Narrative:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

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

P-1 Item Nomenclature:

MODIFICATIONS LESS THAN \$5.0M (TCV-WTCV) (GA0925)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 10.7 | 0.0 | 1.0 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 12.7 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 10.7 | 0.0 | 1.0 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 12.7 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 10.7 | 0.0 | 1.0 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 12.7 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: This funding provides for the procurement of hardware kits, their application, and fielding support costs of \$5.0M or less for Tracked Combat Vehicles.

JUSTIFICATION:

1. **HOT WATER RATION HEATER PROVISIONS:** Provides mounting provisions and power on the M113A3 Family of Vehicles for the Hot Water Ration Heater Unit. The Hot Water Ration Heater Unit is issued separately under its own National Stock Number (NSN) and installed in modified vehicles by the user. The Hot Water Ration Heater mounting provisions and unit is an enhancement to the vehicle and does not replace an existing capability. The provisions and unit increases crew comfort and morale by providing means to heat water and meals. If these provisions and unit are not provided, crew ability may be impaired. The intent is to modify vehicles, in Department of the Army Master Priority List (DAMPL) sequence, to accommodate the Hot Water Ration Heater Unit during conversion to A3 configuration.

2. **BATTLEFIELD COMBAT IDENTIFICATION SYSTEM:** The Battlefield Combat Identification System (BCIS) is a millimeter wave Question and Answer system that will provide positive identification of friendly ground vehicles to minimize battlefield fratricide and enhance combat effectiveness. The BCIS is a designated Army Horizontal Technology Integration (HTI) initiative. Starting in FY00 BCIS are required for the M88A1 Recovery Vehicle through PM Combat ID.

Exhibit P-40M Budget Item Justification Sheet

Date

February 1999

Appropriation / Budget Activity/Serial No.

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

P-1 Item Nomenclature

MODIFICATIONS LESS THAN \$5.0M (TCV-WTCV) (GA0925)

Program Elements for Code B Items

Code

Other Related Program Elements

Description

Fiscal Years

| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
|---|------------------|---------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| Water/Ration Heater | | | | | | | | | | | |
| 1-94-05-4473 | Legislative Comp | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Battlefield Combat Identification Systems | | | | | | | | | | | |
| 1-98-05-4543 | Oper Capability | 0.0 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 1.0 |
| Totals | | 1.0 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 2.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: **Water/Ration Heater 1-94-05-4473**

MODELS OF SYSTEMS AFFECTED: M113A3, M557A3, M1064A3, M1068A3

DESCRIPTION / JUSTIFICATION:

Provides mounting provisions and power on the M113 A3 Family of Vehicles for the Hot Water Ration Heater Unit. The Hot Water Ration Heater Unit is issued separately under its own National Stock Number (NSN) and installed in modified vehicles by the user. The Hot Water Ration Heater mounting provisions and unit is an enhancement to the vehicle and does not replace an existing capability. The provisions and unit increases crew comfort and morale by providing means to heat water and meals. If these provisions and unit are not provided, crew ability may be impaired. The intent is to modify vehicles, in Department of the Army Master Priority List (DAMPL) sequence, to accommodate the Hot Water Ration Heater Unit during conversion to A3 configuration.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

TDP Available

MAR 95

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|-----|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | 432 | | | | | | | | | | | | | | | | |
| Outputs | | | | | 432 | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 432 |
| Outputs | | | | | | | | | | | | | | | | | | 432 |

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 4 Months

Contract Dates: FY 1999 March 99 FY 2000 FY 2001

Delivery Date: FY 1999 July 99 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont):

Water/Ration Heater 1-94-05-4473

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | | TOTAL | |
|---------------------------------|----------------------|-----|---------|---------|---------|---------|---------|---------|---------|-----|----|-------|-----|
| | Qty | \$ | | | | | | | | Qty | \$ | Qty | \$ |
| RDT&E | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | |
| Kit Quantity | 432 | 0.5 | | | | | | | | | | 432 | 0.5 |
| Installation Kits | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 432 | 0.5 | | | | | | | | | | 432 | 0.5 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | |
| Total Installation | 432 | 0.5 | | | | | | | | | | 432 | 0.5 |
| Total Procurement Cost | | 1.0 | | | | | | | | | | | 1.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Battlefield Combat Identification Systems 1-98-05-4543

MODELS OF SYSTEMS AFFECTED: M88A1

DESCRIPTION / JUSTIFICATION:

BATTLEFIELD COMBAT IDENTIFICATION SYSTEM: The Battlefield Combat Identification System (BCIS) is a millimeter wave Question and Answer system that will provide positive identification of friendly ground vehicles to minimize battlefield fratricide and enhance combat effectiveness. The BCIS is a designated Army Horizontal Technology Integration (HTI) initiative. Starting in FY00 BCIS are required for the M88A1 Recovery Vehicle through PM Combat ID.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACCOMPLISHED

| | | |
|------------------------|------|------|
| Milestone II | 3Q93 | 3Q93 |
| Critical Design Review | 2Q94 | 2Q94 |
| PPQT/LUT | 1Q95 | 1Q95 |
| T.F. XXI Demo | 3Q97 | 3Q97 |
| NATO Demo | 4Q97 | 4Q97 |
| LRIP IPR | 2Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | 5 | 5 | 5 | |
| Outputs | | | | | | | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 5 | 5 | 5 | 5 |

| Pr Yr | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|--|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | | 45 |
| Outputs | | | | | | | | | | | | | | | | | | | | | 45 |

METHOD OF IMPLEMENTATION: Field **ADMINISTRATIVE LEADTIME:** 1 Month **PRODUCTION LEADTIME:** 2 Months

Contract Dates: FY 1999 FY 2000 Nov 99 FY 2001

Delivery Date: FY 1999 FY 2000 Jan 00 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Battlefield Combat Identification Systems 1-98-05-4543

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-----|---------|-----|---------|-----|---------|-----|---------|----|---------|----|-----|----|-------|----|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | 8 | | 8 | | 14 | | 15 | | | | | | | | | 45 | |
| Installation Kits | | | | | | 0.2 | | 0.2 | | 0.3 | | 0.3 | | | | | | | | | 1.0 |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | | | | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | | | | | | | | | | | |
| Total Procurement Cost | | | | | | 0.2 | | 0.2 | | 0.3 | | 0.3 | | | | | | | | | 1.0 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles
 P-1 Item Nomenclature: ITEMS LESS THAN \$5.0M (TCV-WTCV) (GL3100)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 17.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 18.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 17.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 18.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 17.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 18.5 |
| 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.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: ITEMS LESS THAN \$5.0M (TCV-WTCV) (GL3100) | | | Weapon System Type: | | | Date: February 1999 | | | |
|--|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 and Emergency Repair 4940-00-209-2634 G352 | | A | 11 | 1 | 11 | 33 | 2 | 17 | | | | | | |
| 2. Tool Set, Full Tracked Vehicle, Org Maint, Suppl 2 G649 | | A | | | | 99 | 8 | 12 | 138 | 10 | 14 | 136 | 9 | 15 |
| TOTAL | | | 11 | | | 132 | | | 138 | | | 136 | | |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 1449.7 | 9.0 | 8.3 | 8.8 | 8.9 | 9.3 | 10.0 | 10.0 | 10.5 | 10.7 | 0.0 | 1535.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 1449.7 | 9.0 | 8.3 | 8.8 | 8.9 | 9.3 | 10.0 | 10.0 | 10.5 | 10.7 | 0.0 | 1535.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 1449.7 | 9.0 | 8.3 | 8.8 | 8.9 | 9.3 | 10.0 | 10.0 | 10.5 | 10.7 | 0.0 | 1535.5 |
| 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 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 for the portions of plants which are no longer required for active production.

JUSTIFICATION: The FY00 and FY01 request supports PSR to Government owned equipment at Lima Army Tank Plant (LATP) and 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. Included are rehab of a Vertical/Horizontal Mill Machines, purchase Heat Recovery Units, Coal Conveyor Belt at LATP and rebrick Salt Bath located at Scranton. Also, funding will be used for packing, crating, handling & transportation of Government owned Equipment retained for future production.

| | FY 1998 | FY 1999 | FY 2000 | FY 2001 |
|--------------|--------------|--------------|--------------|-------------|
| PIF | 7.988 | 8.488 | 8.571 | 8.993 |
| LIF | 0.349 | 0.35 | 0.353 | 0.347 |
| TOTAL | 8.337 | 8.838 | 8.924 | 9.34 |

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 1 / Tracked Combat Vehicles | | | P-1 Line Item Nomenclature: PRODUCTION BASE SUPPORT (TCV- WTCV) (GA0050) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 |
| 49X4281 LIF, Layaway/Redistribution Various Government & Contractor Facilities Provides for plant clearance and restoration of those areas no longer required for active production. Packing, crating, handling & transportation GFE retained for future prod. | | | 0.349 | | | 0.350 | | | 0.353 | | | 0.347 | | |
| 49X6037 PSR, LIMA Army Tank Plant (LATP) Provides non-routine maintenance of real property facilities, I.P.E. purchase & rehab. of production equipment. Machinery consist of Welding, Milling and Shot Blast Machines. Project also provides for Plant Utilities. | | | 5.313 | | | 4.800 | | | 5.720 | | | 6.153 | | |
| 49X6040 PSR, Scranton/Muskegon Facilities Provides replacement/rehab of Government owned equipment at contractor plants. Also, project covers Unplanned Repairs of equipment and Unplanned Regulatory Requirements at both facilities. | | | 2.675 | | | 3.688 | | | 2.851 | | | 2.840 | | |
| TOTAL | | | 8.337 | | | 8.838 | | | 8.924 | | | 9.340 | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 49876 | 2034 | 1500 | 1198 | 1304 | 1196 | 752 | 818 | 1072 | 228 | | 59978 |
| Gross Cost | 183.3 | 20.3 | 14.4 | 11.5 | 12.2 | 12.6 | 8.2 | 8.5 | 11.3 | 6.4 | 0.0 | 288.7 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 183.3 | 20.3 | 14.4 | 11.5 | 12.2 | 12.6 | 8.2 | 8.5 | 11.3 | 6.4 | 0.0 | 288.7 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 183.3 | 20.3 | 14.4 | 11.5 | 12.2 | 12.6 | 8.2 | 8.5 | 11.3 | 6.4 | 0.0 | 288.7 |
| 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. The FY97 thru FY05 buys the M240B configuration in the Armor Machine Gun Series.

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.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) | | | Weapon System Type: | | | Date: February 1999 | | | |
|--|---|---|--------------|------------|--|--------------|------------|---------------------|--------------|------------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | 5340 7337 | 633 867 | 8 8 | 5274 4434 | 673 525 | 8 8 | 3650 6688 | 438 866 | 8 8 | 10672 | 1196 | 9 |
| 2. Engineering Support - In House Support | | | 390 | | | 1027 | | | 1076 | | | 899 | | |
| 3. Quality Assurance (ARDEC) | | | 63 | | | 63 | | | 56 | | | 57 | | |
| 4. Integrated Logistics Support | | | 79 | | | 79 | | | 74 | | | 76 | | |
| 5. Engineering Studies | | | 191 | | | | | | 244 | | | | | |
| 6. Engineering Change Proposals | | | 337 | | | 226 | | | | | | 253 | | |
| 8. Fielding | | | 160 | | | 363 | | | 416 | | | 413 | | |
| 9. Cancellation Costs | | | 461 | | | | | | | | | | | |
| 10. Testing | | | | | | | | | | | | 200 | | |
| TOTAL | | | 14358 | | | 11466 | | | 12204 | | | 12570 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

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: **ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000)**

| WBS Cost Elements: 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 (Incls Flex Mount & Blank Firing Device) | | | | | | | | | | |
| FY 98 | FN Manufacturing Inc., Columbia, SC | SS/FFP M-3(2) | ACALA | Jun-98 | Feb-00 | 633 | 8 | Yes | No | |
| | FN Manufacturing Inc., Columbia, SC | SS/FFP M-3(3) | ACALA | Jun-98 | Aug-00 | 867 | 8 | Yes | No | |
| FY 99 | FN Manufacturing Inc., Columbia, SC | Option | ACALA | Dec-98 | Dec-98 | 673 | 8 | Yes | No | |
| | FN Manufacturing Inc., Columbia, SC | SS/FFP M-3(3) | ACALA | Jan-99 | Feb-01 | 525 | 8 | Yes | No | |
| FY00 | FN Manufacturing Inc., Columbia, SC | SS/FFP M-3(3) | ACALA | Dec-99 | May-01 | 438 | 8 | Yes | No | |
| | FN Manufacturing Inc., Columbia, SC | Option | ACALA | Dec-99 | Aug-01 | 866 | 8 | Yes | No | |
| FY01 | TBS | C/FFP M-3(1) | | Jan-01 | Jan-03 | 1196 | 9 | Yes | No | |

REMARKS: The M240 contract was established as a 3-year multiyear contract (FY97,99,00).

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: ARMOR MACHINE GUN, 7.62MM M240 SERIES (G13000) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | | | | | | | | | | |
|---|-----|---------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|------------|------------|------------|------------|------------|------------------------|------------|-----|-----|-----|-----|-----|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------|
| 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 | | | | | | | | | |
| Hardware (Incls Flex Mount & Blank Firing Device) | 1 | 97 & Pr | A | 3234 | 1200 | 2034 | | | | | | | | | 145 | 145 | 145 | 145 | 145 | 145 | 130 | | | | | | | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 134 |
| | 1 | 97 & Pr | FMS | 238 | | 238 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 238 |
| | 1 | 98 | A | 633 | | 633 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 633 |
| | 1 | 98 | A | 867 | | 867 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 867 |
| | 1 | 98 | FMS | 40 | | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 40 |
| | 1 | 98 | N | 26 | | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 98 | A | 673 | | 673 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 99 | A | 673 | | 673 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 99 | A | 525 | | 525 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 525 |
| | 1 | 00 | A | 438 | | 438 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 438 |
| | 1 | 00 | A | 866 | | 866 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 866 |
| | 2 | 01 | A | 1196 | | 1196 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1196 |
| TOTAL | | | | 8736 | 1200 | 7536 | | | | | | | | | 145 | 145 | 145 | 145 | 171 | 145 | 130 | | | | | | | 100 | 135 | 145 | 155 | 165 | 175 | 175 | 175 | 175 | 175 | 173 | 4937 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 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 | 9 | 1 | INITIAL | 7 | 6 | 23 | 29 | FY97 - FY00 program funded delivery perioda & MFR leadtime extended to maintain minimum production rate. Extended MFR leadtime in FY01 due to production processes required for possible new producer. FY99 qty 673 is an option to multiyear contract . Delivery concurrent with existing production schedule. |
| | | | | | | | REORDER | 7 | 2 | 12 | 14 | |
| 2 | TBS | 90 | 200 | 350 | 9 | 2 | INITIAL | 7 | 3 | 25 | 28 | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |
| | | | | | | | INITIAL | | | | | |
| | | | | | | | REORDER | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 66137 | 3802 | 406 | 1525 | | | | | | | 7978 | 79848 |
| Gross Cost | 165.8 | 11.9 | 3.1 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 213.9 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 165.8 | 11.9 | 3.1 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 213.9 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 165.8 | 11.9 | 3.1 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 213.9 |
| 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.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | 1069 | 406 | 3 | 4020 | 1525 | 3 | | | | | | |
| 2. GFM | | | | | | | | | | | | | | |
| 3. Engineering Support (In-House) | | | 454 | | | 78 | | | | | | | | |
| 4. Quality Assurance (ARDEC) | | | 60 | | | 21 | | | | | | | | |
| 5. Testing (TECOM) | | | 127 | | | 60 | | | | | | | | |
| 6. Engineering Change Proposals (ECP's) | | | | | | 50 | | | | | | | | |
| 7. ILS | | | 60 | | | 40 | | | | | | | | |
| 8. Fielding | | | 1039 | | | 213 | | | | | | | | |
| 9. TDP Maintenance | | | 100 | | | | | | | | | | | |
| 10. Engineering Study | | | 222 | | | | | | | | | | | |
| TOTAL | | | 3131 | | | 4482 | | | | | | | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: 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 FY98 | FN Mfg Co., Inc., Columbia SC | SS/FFP M-3(3) | ACALA | Dec-97 | Jul-99 | 406 | 3 | Yes | No | |
| FY99 | FN Mfg Co., Inc., Columbia SC | SS/FFP | ACALA | Nov-98 | Aug-99 | 1525 | 3 | Yes | No | |

REMARKS:

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: MACHINE GUN, 5.56MM (SAW) (G12900) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | |
|---------------------------------------|--|-------|----------------|---------------|-----------------------|---------------------|---|--------------|--------------|--------------|--|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| 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 | 97&PR | A | 60839 | 60839 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 97&PR | A | 9100 | 9100 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 97&PR | MC | 2500 | 2500 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 97&PR | AF | 2500 | 2500 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 97&PR | SDAF | 500 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 97&PR | FMS | 220 | 220 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | 97&PR | OTH | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY98 | A | 406 | 406 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | FY99 | A | 1525 | 762 | 763 | 450 | 313 | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | 77592 | 76829 | 763 | 450 | 313 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | 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 Number | ADMIN LEAD TIME | | MFR | TOTAL | REMARKS | | | | | | | | | | | | | | | | | | | | |
| | NAME / LOCATION | MIN. | 1-8-5 | MAX. | D + | | Prior 1 Oct. | After 1 Oct. | After 1 Oct. | After 1 Oct. | Fy98 funded delivery schedule extended to maintain minimum production rates. | | | | | | | | | | | | | | | | | | | | |
| 1 | FN Mfg Co Inc Columbia SC | 450 | 1200 | 2400 | 18 | 1 | INITIAL | 7 | 2 | 20 | 22 | | | | | | | | | | | | | | | | | | | | |
| 2 | Fabrique National Nouveau Herstal, Belgium | | (one time buy) | | | | REORDER | 7 | 1 | 10 | 11 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 13403 | 2150 | 400 | 697 | 1085 | 581 | 772 | 499 | | | | 19587 |
| Gross Cost | 214.4 | 33.0 | 7.7 | 15.2 | 18.3 | 12.0 | 15.4 | 19.6 | 0.0 | 0.0 | 0.0 | 335.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 214.4 | 33.0 | 7.7 | 15.2 | 18.3 | 12.0 | 15.4 | 19.6 | 0.0 | 0.0 | 0.0 | 335.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 214.4 | 33.0 | 7.7 | 15.2 | 18.3 | 12.0 | 15.4 | 19.6 | 0.0 | 0.0 | 0.0 | 335.5 |
| 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.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: GRENADE LAUNCHER, AUTO, 40MM, MK19- 3 (G13400) | | | Weapon System Type: | | | Date: February 1999 | | |
|---|----------|---|-------------|-------------------|--|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| WTCV Cost Elements | ID CD | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | TotalCost \$000 | Qty Each | UnitCost \$000 | TotalCost \$000 | Qty Each | UnitCost \$000 | TotalCost \$000 | Qty Each | UnitCost \$000 | TotalCost \$000 | Qty Each | UnitCost \$000 |
| 1. Hardware | A | 6525 | 400 | 16 | 13224 | 697 | 19 | 16566 | 1085 | 15 | 10314 | 581 | 18 |
| 2. Round Removal Tool (GFM) | | 119 | | | 76 | | | 121 | | | 66 | | |
| 3. Engineering Support (In-House) | | 370 | | | 881 | | | 778 | | | 786 | | |
| 4. Quality Assurance (ARDEC) | | 46 | | | 96 | | | 75 | | | 75 | | |
| 5. Integrated Logistics Support (ILS) | | 159 | | | 155 | | | 136 | | | 137 | | |
| 6. Engineering Change Proposals (ECP's) | | 2 | | | 123 | | | 132 | | | 86 | | |
| 7. Engineering Studies | | | | | 130 | | | | | | | | |
| 8. Testing (TECOM) | | 266 | | | 285 | | | 290 | | | 300 | | |
| 9. Fielding | | 170 | | | 182 | | | 192 | | | 186 | | |
| TOTAL | | 7657 | | | 15152 | | | 18290 | | | 11950 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

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:
GRENADE LAUNCHER, AUTO, 40MM, MK19-3 (G13400)

| WBS Cost Elements: 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 FY98 | SACO Defense, Saco, Maine | SS/FFP M-3(2) | ACALA | Apr-98 | Feb-00 | 400 | 16 | Yes | No | |
| FY99 | SACO Defense, Saco, Maine | SS/FFP M-3(3) | ACALA | Dec-98 | Jun-00 | 697 | 19 | Yes | No | |
| FY00 | SACO Defense, Saco, Maine | Option | ACALA | Dec-99 | Jan-01 | 1085 | 15 | Yes | No | |
| FY01 | SACO Defense, Saco, Maine | SS/FFP M-3(1) | ACALA | Dec-00 | Dec-01 | 581 | 18 | Yes | No | |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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: Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 542667 | 15583 | 11297 | 16464 | 12479 | 10922 | 3416 | 6557 | 28875 | 19571 | 10327 | 678158 |
| Gross Cost | 247.3 | 6.5 | 4.9 | 6.8 | 5.7 | 4.8 | 2.0 | 3.1 | 13.3 | 9.4 | 3.5 | 307.4 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 247.3 | 6.5 | 4.9 | 6.8 | 5.7 | 4.8 | 2.0 | 3.1 | 13.3 | 9.4 | 3.5 | 307.4 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 247.3 | 6.5 | 4.9 | 6.8 | 5.7 | 4.8 | 2.0 | 3.1 | 13.3 | 9.4 | 3.5 | 307.4 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The M16A4 Rifle is a 5.56mm gas operated, magazine fed weapon capable of firing either semiautomatic or three-round burst. It is identical to the currently fielded M16A2 Rifle, with the exception that the upper receiver contains an integral mounting rail with a detachable carrying handle/rear sight. The M16A4 in combination with the M5 adapter rail forms the Modular Weapon System (MWS) which provides soldiers the flexibility to configure their weapons with those accessories required to fulfill an assigned mission.

JUSTIFICATION: The M16A4 Rifle was developed as part of the Modular Weapon System (MWS) Program. The U.S. Army identified a need to improve the versatility of the M4 Carbine and the M16A2 Rifle. This was to be accomplished by providing multiple mounting surfaces on the M4 and M16A2 to allow a combination of various accessories to be simultaneously mounted on the weapons. The M4 Carbine already contained an integral rail on the upper receiver. The M16A4 provides the same capability on the rifle. Future production of the rifle will be in the M16A4 configuration. Funding in FY00-01 is to provide continuous production and to support the current MWS fielding schedule. A total of 116,848 M16A1's have been converted to M16A2's lowering the "to complete" quantity to 11,584.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: M16 RIFLE (G14900) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|---|---|--------------|------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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. Rifle (Includes Slings & Magazine) | A | | 2513 | 6497 | 387 | 6372 | 16464 | 387 | 5094 | 12479 | 408 | 4458 | 10922 | 408 |
| | | | 1257 | 3249 | 387 | | | | | | | | | |
| | | | 600 | 1551 | 387 | | | | | | | | | |
| 2. Engineering Support (In-House) | | | 481 | | | 50 | | | 325 | | | 59 | | |
| 3. Engineering Change Proposals (ECP's) | | | | | | 98 | | | 75 | | | 66 | | |
| 4. Quality assurance (ARDEC) | | | | | | | | | 33 | | | | | |
| 5. Integrated Logistics Support (ILS) | | | | | | 76 | | | | | | 60 | | |
| 7. Fielding | | | 20 | | | 215 | | | 217 | | | 196 | | |
| TOTAL | | | 4871 | | | 6811 | | | 5744 | | | 4839 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| 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: M16 RIFLE (G14900) | | | | | |
|---|-----------------------------------|--------------------------|-----------------|------------|---|----------|-----------------|------------------|------------------|----------------|
| WBS Cost Elements: 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. Rifle (Includes Slings and Magazines) FY98 | Colt's Mfg Co., Inc. Hartford, CT | C/FFP | ACALA | Jul-98 | Nov-98 | 6497 | 387 | Yes | No | |
| | Colt's Mfg Co., Inc. Hartford, CT | Option | ACALA | Sep-98 | Aug-99 | 3249 | 387 | Yes | No | |
| | Colt's Mfg Co., Inc. Hartford, CT | Option | ACALA | Nov-98 | Nov-99 | 1551 | 387 | Yes | No | |
| FY99 | Colt's Mfg Co., Inc. Hartford, CT | Option | ACALA | Jan-99 | Dec-99 | 16464 | 387 | Yes | No | |
| FY00 | TBS | C/FFP | ACALA | Jan-00 | Jul-00 | 12479 | 408 | Yes | No | |
| FY01 | TBS | Option | ACALA | Jan-01 | Jul-01 | 10922 | 408 | Yes | No | |

REMARKS:

| FY 00 / 01 BUDGET PRODUCTION SCHEDULE | | | | | | | P-1 Item Nomenclature: M16 RIFLE (G14900) | | | | | | | | | | | | | Date: February 1999 | | | | | | | | | | | |
|---------------------------------------|--------------------------|-------|-------|---------------|-----------------------|---------------------|---|--------------|--------------|--------------|--|-----|------------------|-----|-----|-----|-----|-----|------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----------|
| 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 | | | | | | 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. Hardware | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 97&PR | A | 546.1 | 511.3 | 34.8 | | 1.0 | 1.5 | 1.5 | 1.5 | 1.5 | | 1.0 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 15.6 | | | |
| M16A2 | 2 | 97&PR | A | 12.0 | 12.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 97&PR | MC | 26.1 | 26.1 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 97&PR | N | 7.4 | 7.4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 2 | 97&PR | N | 8.6 | 8.6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 97&PR | AF | 29.0 | 29.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 97&PR | SDAF | 20.0 | 20.0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 97&PR | FMS | 4.3 | 4.3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M16A2 | 1 | 98 | FMS | 40.4 | | 40.4 | 1.5 | 1.5 | 0.5 | | | | | 1.5 | 0.5 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 23.6 | | | |
| M16A4 | 2 | 98 | A | 6.5 | | 6.5 | | | | | | | | | A | | | | 3.0 | | | | | 0.5 | 1.0 | 1.0 | 1.0 | | | | |
| M16A4 | 2 | 98 | A | 3.2 | | 3.2 | | | | | | | | | | A | | | | | | | | | | 1.0 | 1.0 | 1.2 | | | |
| M16A4 | 2 | 98 | A | 1.6 | | 1.6 | | | | | | | | | | | | A | | | | | | | | | | 1.6 | | | |
| M16A4 | 2 | 99 | A | 16.5 | | 16.5 | | | | | | | | | | | | | | A | | | | | | | | 16.5 | | | |
| M16A4 | 3 | 00 | A | 12.5 | | 12.5 | | | | | | | | | | | | | | | | | | | | | | 12.5 | | | |
| M16A4 | 3 | 01 | A | 10.9 | | 10.9 | | | | | | | | | | | | | | | | | | | | | | 10.9 | | | |
| Total | | | | 745.1 | 618.7 | 126.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 4.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 81.9 | | |
| | | | | | | | 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 Number | ADMIN LEAD TIME | | MFR | TOTAL | REMARKS | | | | | | | | | | | | | | | | | | | | |
| | NAME / LOCATION | MIN. | 1-8-5 | MAX. | D + | | Prior 1 Oct. | After 1 Oct. | After 1 Oct. | After 1 Oct. | The FY98 Army Program commences the start of the M16A4 Rifle production. MFR leadtime extended on FY99 buy to maintain continuity in production rates. | | | | | | | | | | | | | | | | | | | | |
| 1 | FNMI Mfg, Columbia, SC | 1.0 | 8.0 | 17.0 | 18 | 2 | INITIAL | 0 | 9 | 5 | 14 | | | | | | | | | | | | | | | | | | | | |
| 2 | Colt's MFG, Hartford, CT | 1.0 | 4.0 | 10.0 | 18 | 3 | REORDER | 0 | 3 | 12 | 15 | | | | | | | | | | | | | | | | | | | | |
| 3 | TBS | 1.0 | 4.0 | 10.0 | 18 | | INITIAL | 0 | 3 | 7 | 10 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | 0 | 3 | 7 | 10 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | INITIAL | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | REORDER | | | | | | | | | | | | | | | | | | | | | | | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles
 P-1 Item Nomenclature: XM107, CAL. 50 SNIPER RIFLE (G01500)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | 85 | 233 | 162 | | | | | 480 |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 3.1 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 3.1 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 3.1 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The XM107 is a caliber .50, long range sniper rifle. The primary mission of this rifle is to engage and defeat materiel targets at ranges between 1,700 and 2,000 meters. The secondary role is anti-personnel at shorter ranges.

JUSTIFICATION: Current Army Sniper system, M24, 7.62mm, has limited range and low deposition of energy on target. The M24 is not effective against materiel targets past 800 meters.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: XM107, CAL. 50 SNIPER RIFLE (G01500) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|--|---|-----------|------|---|-----------|------|---------------------|-----------|------|------------------------|-----------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | | | | | | | | | | | | | |
| Weapons | | | | | | | | | 850 | 85 | 10 | 2400 | 233 | 10 |
| Laser Protector & Anti-reflection Device | | | | | | | | | 34 | 85 | | 93 | 233 | |
| 2. ESIP | | | | | | | | | 124 | | | 132 | | |
| 3. Testing | | | | | | | | | 100 | | | 275 | | |
| 4. Integrated Logistical Support | | | | | | | | | 30 | | | 60 | | |
| 5. Fielding | | | | | | | | | | | | 155 | | |
| TOTAL | | | | | | | | | 1138 | | | 3115 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: XM107, CAL. 50 SNIPER RIFLE (G01500) | | | | | |
|---|-------------------------|--------------------------------|-----------------|------------------|---|-------------|--------------------|------------------------|------------------------|-------------------|
| WBS Cost Elements: 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 |
| FY00 Weapon Laser Protector & Anti-Reflection Device | TBS TBS | C/FFP C/FFP | ARDEC ARDEC | Feb-00 Apr-00 | Aug-00 Jul-00 | 85 85 | 10 | | | Sep 97 Nov 99 |
| FY01 Weapon Laser Protector & Anti-Reflection Device | TBS TBS | C/FFP C/FFP | ARDEC ARDEC | Jan-01 | Jul-01 | 233 233 | 10 | | | |

REMARKS: Solicitation issued in Sep 97 included production options for FY00, FY01 and FY02.

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | 67259 | 10603 | 7484 | 6310 | 8687 | 8309 | | | | | 12990 | 121642 |
| Gross Cost | 38.0 | 6.5 | 4.4 | 4.2 | 5.3 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.1 | 72.7 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 38.0 | 6.5 | 4.4 | 4.2 | 5.3 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.1 | 72.7 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 38.0 | 6.5 | 4.4 | 4.2 | 5.3 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.1 | 72.7 |
| 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.

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 FY00-01 programs 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 WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: 5.56 CARBINE M4 (G14904) | | | Weapon System Type: | | | Date: February 1999 | | | |
|--|--|---|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 M4 Carbine w/Sling Magazine, Blank Firing Attachment, and Improved Buttstock | | A | 4094 | 7484 | 1 | 3339 | 6310 | 1 | 4596 | 8687 | 1 | 4585 | 8309 | 1 |
| 2. Engineering Support - In House Support | | | 101 | | | 345 | | | 327 | | | 314 | | |
| 3. Engineering Change Proposals (ECP's) | | | 77 | | | 170 | | | 36 | | | 58 | | |
| 4. Quality Assurance (ARDEC) | | | 42 | | | 79 | | | 71 | | | 78 | | |
| 5. Integrated Logistics Support (ILS) | | | 35 | | | 75 | | | 64 | | | 65 | | |
| 6. Fielding | | | 96 | | | 211 | | | 215 | | | 141 | | |
| TOTAL | | | 4445 | | | 4219 | | | 5309 | | | 5241 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date: February 1999

| 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: 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 | | | | | | | | | | |
| FY98 | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP M-4(2) | ACALA | Jan-98 | May-99 | 6000 | 1 | Yes | No | |
| | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP | ACALA | May-98 | Jun-01 | 1484 | 1 | Yes | No | |
| FY99 | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP M-4(3) | ACALA | Jan-99 | May-00 | 6000 | 1 | Yes | No | |
| | Colt's Mfg Co., Inc. Hartford, CT | Option/ FY98 SS/FFP | ACALA | Jan-99 | Sep-01 | 310 | 1 | Yes | No | |
| FY00 | Colt's Mfg Co., Inc. Hartford, CT | SS/FFP M-4(4) | ACALA | Jan-00 | May-01 | 6000 | 1 | Yes | No | |
| | Colt's Mfg Co., Inc. Hartford, CT | Option/ FY98 SS/FFP | ACALA | Jan-00 | Oct-01 | 2687 | 1 | Yes | No | |
| FY01 | Colt's Mfg Co., Inc. Hartford, CT | Option/ FY98 SS/FFP | ACALA | Jan-01 | Mar-02 | 8309 | 1 | Yes | No | |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles
 P-1 Item Nomenclature: MARK-19 MODIFICATIONS (GB3000)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.6 | 0.0 | 0.0 | 3.9 | 3.9 | 0.0 | 10.4 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.6 | 0.0 | 0.0 | 4.0 | 4.0 | 0.0 | 10.6 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.6 | 0.0 | 0.0 | 4.0 | 4.0 | 0.0 | 10.6 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The Adjustable Sight Bracket (ASB), when attached to the MK19 Grenade Machine Gun will provide a common mounting interface for various fire control and optical devices.

JUSTIFICATION: The Adjustable Sight Bracket adjusts to allow the fire control to maintain a line of sight to target out to man range while the weapon is elevated to engage targets. The ASB in conjunction with fire control devices will result in reduced target acquisition time.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. P-1 Item Nomenclature
 PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles MARK-19 MODIFICATIONS (GB3000)

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|-------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |

| | | | | | | | | | | | |
|--------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Adjustable Sight Bracket | | | | | | | | | | | |
| TBD1 | Operational | 0.0 | 0.0 | 2.0 | 0.6 | 0.0 | 0.0 | 3.9 | 3.9 | 11.5 | 21.9 |
| Totals | | 0.0 | 0.0 | 2.0 | 0.6 | 0.0 | 0.0 | 3.9 | 3.9 | 11.5 | 21.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Adjustable Sight Bracket TBD1

MODELS OF SYSTEMS AFFECTED: MK19 Grenade Machine Gun

DESCRIPTION / JUSTIFICATION:

The Adjustable Sight Bracket (ASB), when attached to the MK19 Grenade Machine Gun will provide a common mounting interface for various fire control and optical devices.

The Adjustable Sight Bracket adjusts to allow the fire control to maintain a line of sight to target out to man range while the weapon is elevated to engage targets. The ASB in conjunction with fire control devices will result in reduced target acquisition time.

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

| | |
|----------------------------|------|
| Materiel Work Order | 4Q99 |
| Production Contract Award | 3Q00 |
| First Production Delivered | 3Q01 |
| First Unit Equipped | 4Q01 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 12 Months

Contract Dates: FY 1999 FY 2000 JUN 00 FY 2001 MAR 01

Delivery Date: FY 1999 FY 2000 MAY 01 FY 2001 FEB 02

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Adjustable Sight Bracket TBD1

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-----|---------|----|---------|-------|---------|----|---------|----|--------|------|--------|-------|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | 0.473 | | | | | | | | | | | | | | | | | | | | 0.473 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | | | | | 1956 | | 475 | | | | | | 3200 | | 3200 | | | 9169 | | 18000 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | | | | | 1.435 | 0.346 | | | | | 3.613 | 3.610 | | | | 10.823 | | 19.827 | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | | | | | 0.475 | 0.205 | | | | | 0.250 | 0.250 | | | | 0.500 | | 1.680 | | |
| Testing | | | | | | 0.010 | | | | | | | | | | | 0.025 | | 0.035 | | |
| Integrated Logistical Support | | | | | | 0.010 | 0.010 | | | | | 0.010 | 0.010 | | | | 0.020 | | 0.060 | | |
| Fielding | | | | | | 0.050 | 0.025 | | | | | 0.050 | 0.050 | | | | 0.100 | | 0.275 | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | 1800 | | 156 | | | | | | | | | | | 1956 | |
| FY 2001 Eqpt -- Kits | | | | | | | | | 475 | | | | | | | | | | | 475 | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 2700 | | 500 | | 3200 | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 3200 | | 3200 | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | 9169 | | 9169 | | |
| Total Installment | | | | | | | 1800 | 631 | | | | | 2700 | | | | 12869 | | 18000 | | |
| Total Procurement Cost | | | | | | 2.0 | 0.6 | | | | | 3.9 | 3.9 | | | | 11.5 | | 21.9 | | |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.9 | 4.7 | 7.0 | 5.1 | 5.3 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.9 | 4.7 | 7.0 | 5.1 | 5.3 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.9 | 4.7 | 7.0 | 5.1 | 5.3 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.5 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The M4 Carbine Modification Program provides a close combat optic, an improved buttstock, a modular weapon suite: which includes a rail system, a top carry sling and a permanently affixed back-up iron sight for the M4 Carbine. It also 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 aperture, iron sight provides that capability in the event it becomes immediately necessary. The M203A1 Grenade Launcher ensures 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 1999

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

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|-----------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Modular Weapon System | | | | | | | | | | | |
| TBD1 | Operational | 5.8 | 1.1 | 0.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 |
| Close Combat Optic | | | | | | | | | | | |
| TBD2 | Operational | 5.1 | 2.6 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.0 |
| M203 for M4 Carbine | | | | | | | | | | | |
| TBD3 | Operational | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| M4 Carbine Buttstock | | | | | | | | | | | |
| TBD4 | Operational | 0.6 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| Totals | | 12.5 | 5.1 | 5.3 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.5 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Modular Weapon System TBD1

MODELS OF SYSTEMS AFFECTED: Rifle, 5.56mm M16A2

DESCRIPTION / JUSTIFICATION:

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 | ACTUAL |
|--|---------|-----------|
| Developmental/Operational Tests | | 3Q95-2Q96 |
| Milestone III Production Decision | | 4Q97 |
| Production Contract Award | | 4Q97 |
| First Production Hardware Delivered | | 4Q98 |
| First Unit Equipped | 2Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 12 Months
Contract Dates: FY 1999 Nov 98 FY 2000 Nov 00 FY 2001 Nov 00
Delivery Date: FY 1999 Oct 99 FY 2000 Oct 01 FY 2001 Oct 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Modular Weapon System TBD1

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|-------|---------|-------|---------|----|---------|-------|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 1.158 | | | | | | | | | | | | | | | | | | | 1.158 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity (Rail Systems) | 15058 | | 1900 | | | | 5400 | | | | | | | | | | | | | | 22358 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 5.411 | | 0.910 | | | | 2.322 | | | | | | | | | | | | | 8.643 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | 0.258 | | 0.103 | | | | 0.116 | | | | | | | | | | | | | 0.477 |
| Testing | | 0.020 | | | | | | | | | | | | | | | | | | | 0.020 |
| Integrated Logistical Support | | 0.040 | | 0.030 | | | | 0.030 | | | | | | | | | | | | | 0.100 |
| Fielding | | 0.117 | | 0.029 | | | | 0.060 | | | | | | | | | | | | | 0.206 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 2000 | | 9500 | | 3558 | | | | | | | | | | | | | | | | 15058 |
| FY 1999 Eqpt -- Kits | | | | | 1900 | | | | | | | | | | | | | | | | 1900 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | 5400 | | | | | | | | | | | | 5400 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 2000 | | 9500 | | 5458 | | | | 5400 | | | | | | | | | | | | 22358 |
| Total Procurement Cost | | 5.8 | | 1.1 | | | | 2.5 | | | | | | | | | | | | | 9.4 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Close Combat Optic TBD2

MODELS OF SYSTEMS AFFECTED: M4 Carbine, M68 Sight Reflex

DESCRIPTION / JUSTIFICATION:

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 light level, wet weather and other adverse conditions.

| | | |
|---|----------------|---------------|
| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: | PLANNED | ACTUAL |
| 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 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 1 Months **PRODUCTION LEADTIME:** 10 Months
Contract Dates: FY 1999 Jan 99 FY 2000 Jan 00 FY 2001
Delivery Date: FY 1999 Oct 99 FY 2000 Apr 00 FY 2001

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Close Combat Optic TBD2

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|--------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 1.469 | | | | | | | | | | | | | | | | | | | 1.469 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | 23300 | | 11625 | | 20320 | | | | | | | | | | | | | | | | 55245 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 4.468 | | 2.325 | | 5.000 | | | | | | | | | | | | | | | 11.793 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | 0.363 | | 0.214 | | 0.225 | | | | | | | | | | | | | | | 0.802 |
| Testing | | 0.150 | | 0.050 | | 0.050 | | | | | | | | | | | | | | | 0.250 |
| Integrated Logistical Support | | 0.050 | | 0.020 | | 0.020 | | | | | | | | | | | | | | | 0.090 |
| Fielding | | 0.050 | | 0.020 | | 0.020 | | | | | | | | | | | | | | | 0.090 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 4399 | | 18901 | | | | | | | | | | | | | | | | | | 23300 |
| FY 1999 Eqpt -- Kits | | | | | 11625 | | | | | | | | | | | | | | | | 11625 |
| FY 2000 Eqpt -- Kits | | | | | 10659 | | 9661 | | | | | | | | | | | | | | 20320 |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 4399 | | 18901 | | 22284 | | 9661 | | | | | | | | | | | | | | 55245 |
| Total Procurement Cost | | 5.1 | | 2.6 | | 5.3 | | | | | | | | | | | | | | | 13.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: M203 for M4 Carbine TBD3

MODELS OF SYSTEMS AFFECTED: M4 Carbine, M4A1

DESCRIPTION / JUSTIFICATION:

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

ACTUAL

Developmental/Operational Tests

1Q97

Type Classification/Milestone III

4Q97

Production Contract Award

4Q97

First Production Hardware Delivered

3Q98

First Unit Equipped

4Q98

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION:

Field Application

ADMINISTRATIVE LEADTIME:

Months

PRODUCTION LEADTIME:

Months

Contract Dates:

FY 1999

FY 2000

FY 2001

Delivery Date:

FY 1999

FY 2000

FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): M203 for M4 Carbine TBD3

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 0.631 | | | | | | | | | | | | | | | | | | | 0.631 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | 5152 | | | | | | | | | | | | | | | | | | | | 5152 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 0.617 | | | | | | | | | | | | | | | | | | | 0.617 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | 0.320 | | | | | | | | | | | | | | | | | | | 0.320 |
| Testing | | | | | | | | | | | | | | | | | | | | | |
| Integrated Logistical Support | | 0.040 | | | | | | | | | | | | | | | | | | | 0.040 |
| Fielding | | 0.030 | | | | | | | | | | | | | | | | | | | 0.030 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 2576 | | 2576 | | | | | | | | | | | | | | | | | | 5152 |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 2576 | | 2576 | | | | | | | | | | | | | | | | | | 5152 |
| Total Procurement Cost | | 1.0 | | | | | | | | | | | | | | | | | | | 1.0 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: M4 Carbine Buttstock TBD4

MODELS OF SYSTEMS AFFECTED:

DESCRIPTION / JUSTIFICATION:

The M4 Improved Buttstock provides the rifleman with features for obtaining the proper shooting form; stock/shoulder weld and stock/cheek weld.

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 |
| MWO/First Unit Equipped | 4Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 1 Months **PRODUCTION LEADTIME:** 3 Months
Contract Dates: FY 1999 Dec 98 FY 2000 FY 2001
Delivery Date: FY 1999 Feb 99 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): M4 Carbine Buttstock TBD4

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|-------|-----|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | 10300 | | 31851 | | | | | | | | | | | | | | | | | 42151 | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 0.532 | | 1.381 | | | | | | | | | | | | | | | | | 1.9 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | 0.050 | | 0.045 | | | | | | | | | | | | | | | | | 0.1 |
| Testing | | | | | | | | | | | | | | | | | | | | | |
| Integrated Logistical Support | | 0.020 | | 0.005 | | | | | | | | | | | | | | | | | 0.0 |
| Fielding | | | | | | | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | 10300 | | | | | | | | | | | | | | | | | 10300 | |
| FY 1999 Eqpt -- Kits | | | 31851 | | | | | | | | | | | | | | | | | 31851 | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | 42151 | | | | | | | | | | | | | | | | | 42151 | |
| Total Procurement Cost | | 0.6 | | 1.4 | | | | | | | | | | | | | | | | | 2.0 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles
 P-1 Item Nomenclature: SQUAD AUTOMATIC WEAPON (MOD) (GZ1290)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 10.1 | 5.5 | 4.2 | 4.9 | 0.0 | 0.0 | 32.9 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 10.1 | 5.5 | 4.2 | 4.9 | 0.0 | 0.0 | 32.9 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 10.1 | 5.5 | 4.2 | 4.9 | 0.0 | 0.0 | 32.9 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION:

The M249 Squad Automatic Weapon (SAW) is a 5.56mm, lightweight, machine gun that can be utilized in the automatic rifle role and the machine gun role. The M249 Feedtray Cover will provide a Military Standard 1913 rail interface allowing the mounting of standard military optics (M145 Machine Gun Optics, TWS, PVS-4, etc.) directly to the machine gun. The front rails will be fastened to the sides and bottom of the M249 SAW receiver. The side rails accommodate the devices when the weapon is used in either role, while the bottom rail provides an attachment for the vertical handgrip when the SAW is used in the automatic rifle role.

JUSTIFICATION:

The rails will allow for the attachment of a large variety of existing and future high technology electronic and night vision devices, vertical handgrip and horizontal handgrip, which will provide the soldier additional capabilities to engage targets at extended ranges and during periods of limited visibility.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. P-1 Item Nomenclature
 PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles SQUAD AUTOMATIC WEAPON (MOD) (GZ1290)

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| M249 Feedtray Covers | | | | | | | | | | | |
| TBD1 | Operational | 0.0 | 0.0 | 8.3 | 10.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.4 |
| M249 Rails/Bipods/Handguards | | | | | | | | | | | |
| TBD2 | Operational | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 | 4.2 | 4.9 | 0.0 | 0.0 | 14.6 |
| Totals | | 0.0 | 0.0 | 8.3 | 10.1 | 5.5 | 4.2 | 4.9 | 0.0 | 0.0 | 32.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: M249 Feedtray Covers TBD1

MODELS OF SYSTEMS AFFECTED: M249 Squad Automatic Weapon

DESCRIPTION / JUSTIFICATION:

The M249 Feedtray Cover will provide a Military Standard 1913 rail interface. The rail will allow mounting standard military optics (M145 Machine Gun Optics, TWS, PVS-4 etc), directly to the machine gun. The rail is required to ensure that advanced optical sights can be mounted on the M249 providing the soldier additional capabilities to engage targets at extended ranges and during periods of limited visibility.

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

| | | |
|-------------------------------------|------|------|
| Development/Operational Test | | 3Q98 |
| Production Decision | | 4Q98 |
| Production Contract Award | 1Q00 | |
| First Production Hardware Delivered | 2Q00 | |
| First Unit Equipped | 3Q00 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 5 Months **PRODUCTION LEADTIME:** 5 Months

Contract Dates: FY 1999 FY 2000 Nov 99 FY 2001 Nov 00

Delivery Date: FY 1999 FY 2000 Mar 00 FY 2001 Mar 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): M249 Feedtray Covers TBD1

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|----|---------|----|---------|----|-----|----|-------|----|--------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | 0.602 | | | | | | | | | | | | | | | | | | | | 0.602 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | | | | | 35922 | | 43388 | | | | | | | | | | | | | | 79310 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | | | | | 7.932 | | 9.546 | | | | | | | | | | | | | 17.478 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | | | | | 0.269 | | 0.382 | | | | | | | | | | | | | 0.651 |
| Testing | | | | | | 0.050 | | 0.050 | | | | | | | | | | | | | 0.100 |
| Integrated Logistical Support | | | | | | 0.050 | | 0.050 | | | | | | | | | | | | | 0.100 |
| Fielding | | | | | | 0.025 | | 0.025 | | | | | | | | | | | | | 0.050 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | 15100 | | 20822 | | | | | | | | | | | | | | 35922 |
| FY 2001 Eqpt -- Kits | | | | | | | 18250 | | 25138 | | | | | | | | | | | | 43388 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | 15100 | | 39072 | | 25138 | | | | | | | | | | | 79310 |
| Total Procurement Cost | | | | | | 8.3 | | 10.1 | | | | | | | | | | | | | 18.4 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: M249 Rails/Bipods/Handguards TBD2

MODELS OF SYSTEMS AFFECTED: M249 Squad Automatic Weapon & Machine Gun

DESCRIPTION / JUSTIFICATION:

The M249 Squad Automatic Weapon (SAW) is a 5.56mm, lightweight, machine gun that will be utilized in the automatic rifle role and the machine gun role. The front rails will be fastened to the sides and bottom of the M249 SAW receiver. They will allow the attachment of a large variety of existing and future high technology electronic and night vision devices, vertical handgrip and horizontal handgrip.

The front side rails accommodate the devices when the weapon is used in either role. When the SAW is used in the automatic rifle role, the bottom rail provides an attachment point for the vertical handgrip.

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

| | |
|-------------------------------------|--------|
| Developmental/Operational Test | 2/3Q01 |
| Production Decision | 3Q02 |
| Production Contract Award | 4Q02 |
| First Production Hardware Delivered | 2Q03 |
| First Unit Equipped | 4Q03 |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 8 Months
Contract Dates: FY 1999 FY 2000 FY 2001
Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): M249 Rails/Bipods/Handguards TBD2

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|-----|---------|-----|---------|----|------|----|-------|----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | 0.509 | | 0.577 | | 0.530 | | | | | | | | | | | 1.616 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | | | | | | | | | 5582 | | 4244 | | 5000 | | | | | | | | 14826 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | | | | | | | | 3.400 | | 2.500 | | 3.000 | | | | | | | | 8.900 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | | | | | | | | 0.272 | | 0.211 | | 0.202 | | | | | | | | 0.685 |
| Testing | | | | | | | | | 0.300 | | 0.120 | | 0.150 | | | | | | | | 0.570 |
| Integrated Logistical Support | | | | | | | | | 0.080 | | 0.100 | | 0.100 | | | | | | | | 0.280 |
| Fielding | | | | | | | | | 1.434 | | 1.234 | | 1.452 | | | | | | | | 4.120 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 2796 | | 2786 | | | | | | | | 5582 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 2124 | | 2120 | | | | | | 4244 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 2502 | | 2498 | | | | 5000 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | | | 2796 | | 4910 | | 4622 | | 2498 | | | | 14826 |
| Total Procurement Cost | | | | | | | | | | 5.5 | | 4.2 | | 4.9 | | | | | | | 14.6 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles
 P-1 Item Nomenclature: HOWITZER, TOWED, 155MM, M198 (MODS) (GA0430)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 3.5 | 3.5 | 3.5 | 15.8 | 16.9 | 0.0 | 46.5 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 3.5 | 3.5 | 3.5 | 15.8 | 16.9 | 0.0 | 46.5 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 3.5 | 3.5 | 3.5 | 15.8 | 16.9 | 0.0 | 46.5 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: Howitzer Improvement Program and Enhancement (HIPE) for the 155MM, M198, Medium Towed Howitzer

JUSTIFICATION: Two of the major thrusts for ForceXXI and for Army After Next (AAN) is to modernize and digitize current weapon systems. The M198 Howitzer must be modernized in order to perform its mission of general support for the light division. The modifications applied with this funding fulfill this requirement. The HIPE will greatly enhance the mobility, survivability, and responsiveness of the M198. Additionally, the HIPE will enable the M198 to operate in the digitized battlefield. These modifications will ensure that the M198 will continue to be a force multiplier today and in the future.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. P-1 Item Nomenclature
 PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles HOWITZER, TOWED, 155MM, M198 (MODS) (GA0430)

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|----------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|------|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| TBD1 | | | | | | | | | | | |
| Block1 Upgrade | Operational | 0.0 | 0.0 | 3.3 | 3.5 | 3.5 | 3.5 | 3.4 | 3.7 | 0.5 | 21.5 |
| TBD2 | | | | | | | | | | | |
| Block2 Upgrade | Operational | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.4 | 13.2 | 61.9 | 87.4 |
| Totals | | 0.0 | 0.0 | 3.3 | 3.5 | 3.5 | 3.5 | 15.8 | 16.9 | 62.3 | 108.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Block 1 Upgrade

MODELS OF SYSTEMS AFFECTED: M198,155MM Towed Howitzer

DESCRIPTION / JUSTIFICATION:

This block will add: (1) Hydraulic Power Assist Kit (Hypak) which will significantly reduce soldier workload and response time; (2) suspension system which will allow the M198 to be towed at speeds consistant with the prime mover (no speed restrictions), and (3) pre-modification depot maintenance.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

| | | | | | |
|-------------------------------------|---------|--------------|-------------------|---------|--------------|
| | Planned | Accomplished | | Planned | Accomplished |
| Materiel Change Initiated | | 2Q98 | First Kit Applied | 1Q01 | |
| Testing Initiated | 2Q99 | | Last Kit Applied | 4Q05 | |
| Testing Completed | 4Q99 | | | | |
| Production Contract Awarded | 2Q00 | | | | |
| First Production Hardware Delivered | 1Q01 | | | | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|----|----|----|---------|----|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | 48 | | | | 49 | | | | 49 | | | |
| Inputs | | | | | | | | | 12 | 12 | 12 | 12 | 12 | 13 | 12 | 12 | 12 | 13 | 12 | 12 |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | 49 | | | | 48 | | | | | | | | | | | | 57 | 300 |
| Outputs | 12 | 13 | 12 | 12 | 12 | 12 | 12 | 12 | | | | | | | | | 57 | 300 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 11 Months
Contract Dates: FY 1999 FY 2000 Jan 00 FY 2001 Jan 01
Delivery Date: FY 1999 FY 2000 Nov 00 FY 2001 Nov 01

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Block 1 Upgrade

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|-----|-------|-------|-------|--------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | 48 | 1.104 | 49 | 1.127 | 49 | 1.127 | 49 | 1.127 | 48 | 1.104 | 57 | 1.311 | | | 300 | 6.900 | |
| Installation Kits | | | | | | 0.100 | | | | | | | | | | | | | | | 0.100 |
| Installation Kits, Nonrecurring | | | | | | 0.091 | | 0.180 | | 0.169 | | 0.164 | | 0.095 | | 0.119 | | | | | 0.818 |
| Equipment | | | | | | | | | | | | | | | | | | | | | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | 0.100 | | 0.100 | | 0.100 | | 0.100 | | 0.100 | | 0.100 | | | | | 0.600 |
| Data | | | | | | 0.300 | | 0.100 | | 0.100 | | 0.100 | | 0.100 | | 0.100 | | | | | 0.800 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Pre-Modification Depot Maint | | | | | | 1.650 | | 1.650 | | 1.650 | | 1.650 | | 1.650 | | 1.650 | | | | | 9.900 |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Pre-Modification Depot Maint | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | 48 | 0.384 | | | | | | | | | | | | 48 | 0.384 |
| FY 2001 Eqpt -- Kits | | | | | | | | | 49 | 0.392 | | | | | | | | | | 49 | 0.392 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 49 | 0.392 | | | | | | | | 49 | 0.392 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | 49 | 0.392 | | | | | | 49 | 0.392 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 48 | 0.384 | | | | 48 | 0.384 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 57 | 0.456 | | 57 | 0.456 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | 48 | 0.384 | 49 | 0.392 | 49 | 0.392 | 49 | 0.392 | 48 | 0.384 | 57 | 0.456 | 300 | 2.400 | |
| Total Procurement Cost | | | | | | 3.345 | | 3.541 | | 3.538 | | 3.533 | | 3.441 | | 3.664 | | 0.456 | | | 21.518 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Block2 Upgrade

MODELS OF SYSTEMS AFFECTED: M198, 155MM Towed Howitzer

DESCRIPTION / JUSTIFICATION:

Block II will add the Digital Fire Control System (DFCS). The DFCS will increase survivability by substantially decreasing emplacement and displacement times. The DFCS is a TRADOC digitization priority 2 system that will increase direct fire accuracy and dramatically increase responsiveness.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

| | | | | | |
|-------------------------------------|---------|--------------|-------------------|---------|--------------|
| | Planned | Accomplished | | Planned | Accomplished |
| Materiel Change Initiated | | 2Q98 | First Kit Applied | 1Q05 | |
| Testing Initiated | 2Q00 | | Last Kit Applied | 4Q05 | |
| Testing Completed | 4Q03 | | | | |
| Production Contract Awarded | 2Q04 | | | | |
| First Production Hardware Delivered | 1Q05 | | | | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|----|----|----|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | 49 | | | | | | | | | | | | 251 | 300 |
| Outputs | | | | | 12 | 12 | 12 | 13 | | | | | | | | | 251 | 300 |

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 10 Months
Contract Dates: FY 1999 FY 2000 FY 2001
Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Block 2 Upgrade

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---|-------------------|----|---------|----|---------|----|---------|----|---------|----|---------|-------|---------|----|---------|--------|--------|--------|--------|--------|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Kit Quantity | | | | | | | | | | | | 49 | 12.250 | | 48 | 12.000 | 203 | 50.750 | 300 | 75.000 | |
| Installation Kits | | | | | | | | | | | | | | | | 0.050 | | | | 0.050 | |
| Installation Kits, Nonrecurring Equipment | | | | | | | | | | | | | | | | 0.050 | | 0.200 | | 0.250 | |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Change Orders | | | | | | | | | | | | | | | | | | 0.400 | | 0.400 | |
| Data | | | | | | | | | | | | 0.100 | | | 0.300 | | 0.400 | | 0.800 | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Pre-Modification Depot Maint | | | | | | | | | | | | | | | | | | 6.600 | | 6.600 | |
| Interim Contractor Support | | | | | | | | | | | | | | | 0.500 | | 2.000 | | 2.500 | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | 49 | 0.294 | | 49 | 0.294 | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | 48 | 0.288 | 48 | 0.288 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | 203 | 1.218 | 203 | 1.218 |
| Total Installment | | | | | | | | | | | | | | | 49 | 0.294 | 251 | 1.506 | 300 | 1.800 | |
| Total Procurement Cost | | | | | | | | | | | | | 12.350 | | 13.194 | | 61.856 | | 87.400 | | |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 4.8 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 0.0 | 0.0 | 0.0 | 28.9 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 4.8 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 0.0 | 0.0 | 0.0 | 28.9 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 4.8 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 0.0 | 0.0 | 0.0 | 28.9 |
| 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 1999

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 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| TBD1 | | | | | | | | | | | |
| Block1 Upgrade | Operational | 4.8 | 4.2 | 2.8 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 |
| TBD2 | | | | | | | | | | | |
| Block2 Upgrade | Operational | 0.0 | 0.6 | 2.0 | 4.5 | 4.9 | 4.9 | 0.0 | 0.0 | 0.0 | 16.9 |
| Totals | | 4.8 | 4.8 | 4.8 | 4.8 | 4.9 | 4.9 | 0.0 | 0.0 | 0.0 | 28.9 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: TBD1 Block1 Upgrade

MODELS OF SYSTEMS AFFECTED: Howitzer, Light Towed, 105mm M119A1

DESCRIPTION / JUSTIFICATION:

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. Modify Brake System; The new modified brake system is of commercial design which provides better brakes and has lower spares costs. Add Trail Lifting Handles; Due to limited clearance, the user has requested trail lifting handles be designed.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

| | Planned | Accomplished | | 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 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | 30 | 30 | 35 | 35 | 35 | 35 | 35 | 35 | 40 | 40 | 40 | | | | | | | | | |
| Outputs | | 46 | 30 | 35 | 35 | 35 | 35 | 35 | 35 | 40 | 40 | 24 | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | 425 |
| Outputs | | | | | | | | | | | | | | | | | | 425 |

METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 6 Months
 Contract Dates: FY 1999 Multiple FY 2000 Multiple FY 2001 Multiple
 Delivery Date: FY 1999 Multiple FY 2000 Multiple FY 2001 Multiple

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): TBD1 Block1 Upgrade

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | 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 | | 4.317 | | 3.724 | | 2.156 | | | | | | | | | | | | | | | 10.197 |
| Equipment, Nonrecurring | | 0.026 | | | | | | | | | | | | | | | | | | | 0.026 |
| Engineering Change Orders | | 0.032 | | 0.025 | | 0.025 | | | | | | | | | | | | | | | 0.082 |
| Data | | 0.162 | | 0.225 | | 0.235 | | | | | | | | | | | | | | | 0.622 |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | | | | | | | | | | | | | | | | | |
| Other | | 0.167 | | | | | | | | | | | | | | | | | | | 0.167 |
| Contractor Support | | | | 0.051 | | 0.101 | | | | | | | | | | | | | | | 0.152 |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 38 | 0.060 | 72 | 0.137 | | | | | | | | | | | | | | | | 110 | 0.197 |
| FY 1999 Eqpt -- Kits | | | 20 | 0.038 | 105 | 0.200 | | | | | | | | | | | | | | 125 | 0.238 |
| 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 | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 38 | 0.060 | 92 | 0.175 | 140 | 0.267 | 155 | 0.297 | | | | | | | | | | | | 425 | 0.799 |
| Total Procurement Cost | | 4.764 | | 4.200 | | 2.784 | | 0.297 | | | | | | | | | | | | | 12.045 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: TBD2 Block2 Upgrade

MODELS OF SYSTEMS AFFECTED: Howitzer, Light Towed, 105mm M119A1

DESCRIPTION / JUSTIFICATION:

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 rubber 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. 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 compensating tubes in the buffer assembly with a more reliable system. This eliminates the collapse of the current tube design. Modification of firing platform to allow overhaul rather than replacement. Howitzer locator to allow weapon to be easily located during night air drop operations. Add a pressure gage to the recuperator.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

| | Planned | Accomplished | | Planned | Accomplished |
|--------------------------------------|---------|--------------|---------------------------|---------|--------------|
| Validate Materiel change (MC) | | 3Q94 | Deliver First Mod Kit | 3Q02 | |
| Critical Design Review | 3Q00 | | First Unit Equipped (FUE) | 4Q02 | |
| Complete Testing of Prototype | 4Q00 | | Deliver Last Mod Kit | 4Q03 | |
| Release Technical Data Package (TDP) | 1Q01 | | Last Unit Equipped | 1Q04 | |
| Award Contract for Modification Kits | 2Q01 | | | | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|----|----|---------|----|----|----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Inputs | | | | | | | | | | | | | | | 50 | 80 | 80 | 80 | 80 | 55 |
| Outputs | | | | | | | | | | | | | | | 50 | 80 | 80 | 80 | 80 | 80 |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|--|-----|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | 425 |
| Outputs | 55 | | | | | | | | | | | | | | | | | | | 425 |

METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 13 Months
 Contract Dates: FY 1999 FY 2000 FY 2001
 Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): TBD2 Block2 Upgrade

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|----|---------|----|---------|----|---------|----|---------|-------|---------|-------|---------|----|---------|----|-----|----|-------|--------|--------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | | | | | | | | | | | | | | | | | | | | |
| PROCUREMENT | | | | | | | 150 | | 155 | | 120 | | | | | | | | | 425 | |
| Kit Quantity | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Equipment | | | | | | | 4.007 | | 4.367 | | 3.455 | | | | | | | | | 11.829 | |
| Equipment, Nonrecurring | | | | | 0.240 | | | | | | | | | | | | | | | 0.240 | |
| Engineering Change Orders | | | 0.600 | | 0.342 | | 0.082 | | 0.065 | | 0.085 | | | | | | | | | 1.174 | |
| Data | | | | | | | | | | | | | | | | | | | | | |
| Training Equipment | | | | | | | | | | | | | | | | | | | | | |
| Support Equipment | | | | | 0.126 | | | | | | | | | | | | | | | 0.126 | |
| Other | | | | | 1.270 | | 0.315 | | 0.328 | | 0.342 | | | | | | | | | 2.255 | |
| Contractor Support | | | | | 0.022 | | 0.049 | | 0.025 | | 0.030 | | | | | | | | | 0.126 | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 1999 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | 50 | 0.128 | 100 | 0.265 | | | | | | | | 150 | 0.393 |
| FY 2002 Eqpt -- kits | | | | | | | | | | | 155 | 0.411 | | | | | | | | 155 | 0.411 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | 120 | 0.319 | | | | | | | | 120 | 0.319 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | | | | | | | | | 50 | 0.128 | 375 | 0.995 | | | | | | | | 425 | 1.123 |
| Total Procurement Cost | | | 0.600 | | 2.000 | | 4.453 | | 4.913 | | 4.907 | | | | | | | | | | 16.873 |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 33.6 | 4.9 | 4.5 | 5.2 | 7.2 | 9.7 | 2.1 | 0.0 | 2.5 | 2.5 | 0.0 | 72.2 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 33.6 | 4.9 | 4.5 | 5.2 | 7.2 | 9.7 | 2.1 | 0.0 | 2.5 | 2.5 | 0.0 | 72.2 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 33.6 | 4.9 | 4.5 | 5.2 | 7.2 | 9.7 | 2.1 | 0.0 | 2.5 | 2.5 | 0.0 | 72.2 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: The M16 family of rifles is a gas operated, magazine fed and shoulder fired weapon. They are fed by 30 round magazines. The M16 Rifle Modifications Program provides a close combat optic, a modular weapon system suite: which includes a rail system, a top carry sling and a permanently affixed, rear aperture, back-up iron sight for the M16A4 Rifle. 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 1999

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

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|--------------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| Modular Weapon System M16/M203 | | | | | | | | | | | |
| TBD1 | Operational | 4.3 | 3.5 | 7.2 | 9.7 | 2.1 | 0.0 | 2.5 | 2.5 | 0.0 | 31.7 |
| Close Combat Optic M16 | | | | | | | | | | | |
| TBD2 | Operational | 7.9 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.7 |
| Totals | | 12.2 | 5.2 | 7.2 | 9.7 | 2.1 | 0.0 | 2.5 | 2.5 | 0.0 | 41.3 |

* The Prior Year Total on the P-40 includes \$31.4M of programs no longer on this line plus the \$12.2M of programs presently being executed, while the FY 1998 Total on the P-40M (\$12.2M) only addresses the latter.

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Modular Weapon System M16/M203 TBD1

MODELS OF SYSTEMS AFFECTED: Rifle, 5.56mm M16A2

DESCRIPTION / JUSTIFICATION:

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 aiming light, the grenade launcher, back-up sights, etc., based upon mission requirements in the field, without tools.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

PLANNED

ACTUAL

Developmental/Operational Tests
 Milestone III Production Decision
 Production Contract Award
 First Production Hardware Delivered
 First Unit Equipped

3Q95-2Q96
 3Q97
 4Q97
 4Q98

2Q99

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 6 Months **PRODUCTION LEADTIME:** 12 Months
Contract Dates: FY 1999 Nov 98 FY 2000 Nov 99 FY 2001 Nov 00
Delivery Date: FY 1999 Oct 99 FY 2000 Oct 00 FY 2001 Oct 01

INDIVIDUAL MODIFICATION

Date

February 1999

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

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|----|---------|-------|---------|-------|------|----|-------|----|--------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 1.158 | | | | | | | | | | | | | | | | | | | 1.158 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity (Rail Systems) | 4903 | | 6000 | | 12000 | | 17800 | | 1200 | | | | 4910 | | 4910 | | | | | | 51723 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 3.676 | | 3.227 | | 6.832 | | 9.230 | | 1.850 | | | | 2.200 | | 2.200 | | | | | 29.215 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | 0.402 | | 0.150 | | 0.150 | | 0.150 | | 0.162 | | | | 0.152 | | 0.150 | | | | | 1.316 |
| Testing | | 0.055 | | | | | | | | | | | | | | | | | | | 0.055 |
| Integrated Logistical Support | | 0.065 | | 0.025 | | 0.025 | | 0.060 | | 0.050 | | | | 0.050 | | 0.050 | | | | | 0.325 |
| Fielding | | 0.078 | | 0.106 | | 0.173 | | 0.245 | | 0.050 | | | | 0.050 | | 0.050 | | | | | 0.752 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 2000 | | 2500 | | 403 | | | | | | | | | | | | | | | | 4903 |
| FY 1999 Eqpt -- Kits | | | | | 6000 | | | | | | | | | | | | | | | | 6000 |
| FY 2000 Eqpt -- Kits | | | | | | | 10000 | | 2000 | | | | | | | | | | | | 12000 |
| FY 2001 Eqpt -- Kits | | | | | | | | | 15000 | | 2800 | | | | | | | | | | 17800 |
| FY 2002 Eqpt -- kits | | | | | | | | | | 1200 | | | | | | | | | | | 1200 |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | 4910 | | | | | | 4910 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | 4910 | | | | 4910 |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 2000 | | 2500 | | 6403 | | 10000 | | 17000 | | 4000 | | | | 4910 | | 4910 | | | | 51723 |
| Total Procurement Cost | | 4.3 | | 3.5 | | 7.2 | | 9.7 | | 2.1 | | | | 2.5 | | 2.5 | | | | | 31.7 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Close Combat Optic M16 TBD2

MODELS OF SYSTEMS AFFECTED: M16A2/A4 Rifle, M68 Sight Reflex

DESCRIPTION / JUSTIFICATION:

The M68 Sight will be installed on the M16A2/A4 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

ACTUAL

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 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Field Application **ADMINISTRATIVE LEADTIME:** 1 Months **PRODUCTION LEADTIME:** 10 Months

Contract Dates: FY 1999 Jan 99 FY 2000 FY 2001

Delivery Date: FY 1999 Oct 99 FY 2000 FY 2001

INDIVIDUAL MODIFICATION

Date

February 1999

MODIFICATION TITLE (Cont): Close Combat Optic M16 TBD2

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|----------------------|-------|---------|-------|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|-----|----|-------|----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 1.470 | | | | | | | | | | | | | | | | | | | 1.470 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | 36161 | | 7105 | | | | | | | | | | | | | | | | | | 43266 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 6.993 | | 1.421 | | | | | | | | | | | | | | | | | 8.414 |
| ECP | | 0.026 | | | | | | | | | | | | | | | | | | | 0.026 |
| Engineering Support | | 0.721 | | 0.208 | | | | | | | | | | | | | | | | | 0.929 |
| Testing | | 0.062 | | 0.050 | | | | | | | | | | | | | | | | | 0.112 |
| Integrated Logistical Support | | 0.070 | | 0.020 | | | | | | | | | | | | | | | | | 0.090 |
| Fielding | | 0.070 | | 0.020 | | | | | | | | | | | | | | | | | 0.090 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | 12601 | | 16949 | | 6611 | | | | | | | | | | | | | | | | 36161 |
| FY 1999 Eqpt -- Kits | | | | | 7105 | | | | | | | | | | | | | | | | 7105 |
| FY 2000 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2001 Eqpt -- Kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2002 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2003 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2004 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | | | | | | | | | |
| TC Equip-Kits | | | | | | | | | | | | | | | | | | | | | |
| Total Installment | 12601 | | 16949 | | 13716 | | | | | | | | | | | | | | | | 43266 |
| Total Procurement Cost | | 7.9 | | 1.7 | | | | | | | | | | | | | | | | | 9.7 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles
 P-1 Item Nomenclature: MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV (GC0925))

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.8 | 1.3 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 1.3 | 1.3 | 0.0 | 9.8 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.8 | 1.3 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 1.3 | 1.3 | 0.0 | 9.8 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.8 | 1.3 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 1.3 | 1.3 | 0.0 | 9.8 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: Provides for modification of Weapons and Other Combat Vehicles with a cost less than \$5.0 Million.

JUSTIFICATION: Funds identified in FY00/FY01 will provide M145 Machine Gun Optic Sights for the M249, M60 and M240B Machine Guns. The optic sight will allow the soldier to identify and engage targets more effectively than the existing iron sighting system. The optic sight also provides the soldier with a greater hit probability.

Exhibit P-40M Budget Item Justification Sheet

Date
February 1999

Appropriation / Budget Activity/Serial No. P-1 Item Nomenclature
 PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles MODIFICATIONS LESS THAN \$5.0M (WOCV-WTCV) (GC0925)

Program Elements for Code B Items Code Other Related Program Elements

| Description | | Fiscal Years | | | | | | | | | |
|------------------------|----------------|--------------|---------|---------|---------|---------|---------|---------|---------|-----|-------|
| OSIP NO. | Classification | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | TC | Total |
| M145 Machine Gun Optic | | | | | | | | | | | |
| TBD1 | Operational | 1.3 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 1.3 | 1.3 | 0.0 | 9.1 |
| Totals | | 1.3 | 1.1 | 1.0 | 0.8 | 1.3 | 0.9 | 1.3 | 1.3 | 0.0 | 9.1 |

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE: Machine Gun Optics TBD1

MODELS OF SYSTEMS AFFECTED: M249 Squad Automatic Weapon; M60 Machine Guns, M240B Machine Guns

DESCRIPTION / JUSTIFICATION:

The M145 Machine Gun Optic Program provides a 3.4x, laser hardened telescopic sight for the 5.56mm M249 Light Machine Gun, the M60 and 7.62mm Medium Machine Guns. The optic sight will allow the soldier to identify and engage targets at longer ranges and at lower light levels more effectively than the existing iron sighting system. The optic sight also provides the soldier with a greater hit probability.

| DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES | PLANNED | ACTUAL |
|---|---------|--------|
| Development/Operational Tests | | 3Q98 |
| Type Classification (LRP) | | 4Q98 |
| Production Contract Award | | 4Q98 |
| First Production Hardware Delivered | 2Q99 | |
| Type Classification (Standard) | 3Q99 | |
| First Unit Equipped | 4Q99 | |

Installation Schedule:

| Pr Yr | FY 1999 | | | | FY 2000 | | | | FY 2001 | | | | FY 2002 | | | | FY 2003 | | | |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Totals | | | | | | | | | | | | | | | | | | | | |
| Inputs | | | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | | | |

| Pr Yr | FY 2004 | | | | FY 2005 | | | | FY 2006 | | | | FY 2007 | | | | To Complete | Totals |
|----------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|-------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | |
| Inputs | | | | | | | | | | | | | | | | | | |
| Outputs | | | | | | | | | | | | | | | | | | |

METHOD OF IMPLEMENTATION: Unit Application ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 13 Months
 Contract Dates: FY 1999 Jan 99 FY 2000 Jan 00 FY 2001 Jan 01
 Delivery Date: FY 1999 Jan 00 FY 2000 Jan 01 FY 2001 Jan 02

INDIVIDUAL MODIFICATION

Date February 1999

MODIFICATION TITLE (Cont): Machine Gun Optics TBD1

FINANCIAL PLAN: (\$ in Millions)

| | FY 1998 and Prior | | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | FY 2004 | | FY 2005 | | TC | | TOTAL | | |
|---------------------------------|-------------------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|------|----|-------|----|-------|
| | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | Qty | \$ | |
| RDT&E | | 2.166 | | | | | | | | | | | | | | | | | | | 2.166 |
| PROCUREMENT | | | | | | | | | | | | | | | | | | | | | |
| Quantity | 1391 | | 1508 | | 1436 | | 1133 | | 2029 | | 1254 | | 2182 | | 2182 | | | | | | 13115 |
| Installation Kits | | | | | | | | | | | | | | | | | | | | | |
| Installation Kits, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Hardware | | 1.143 | | 0.789 | | 0.773 | | 0.610 | | 1.092 | | 0.675 | | 1.200 | | 1.200 | | | | | 7.482 |
| Equipment, Nonrecurring | | | | | | | | | | | | | | | | | | | | | |
| Engineering Support | | 0.140 | | 0.247 | | 0.143 | | 0.145 | | 0.136 | | 0.143 | | 0.099 | | 0.098 | | | | | 1.151 |
| Testing | | 0.035 | | 0.050 | | 0.050 | | | | | | | | | | | | | | | 0.135 |
| Integrated Logistical Support | | 0.020 | | 0.019 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | | | | 0.159 |
| Fielding | | 0.009 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | 0.020 | | | | | 0.149 |
| Other | | | | | | | | | | | | | | | | | | | | | |
| Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | |
| Installation of Hardware | | | | | | | | | | | | | | | | | | | | | |
| FY 1998 & Prior Eqpt -- Kits | | | 635 | | 756 | | | | | | | | | | | | | | | | 1391 |
| FY 1999 Eqpt -- Kits | | | | | 875 | | | | | | | | | | | | | | | | 1508 |
| FY 2000 Eqpt -- Kits | | | | | | | 633 | | | | | | | | | | | | | | 1436 |
| FY 2001 Eqpt -- Kits | | | | | | | 840 | | | | | | | | | | | | | | 1133 |
| FY 2002 Eqpt -- kits | | | | | | | | | 596 | | | | | | | | | | | | 2029 |
| FY 2003 Eqpt -- kits | | | | | | | | | 658 | | 475 | | | | | | | | | | 1254 |
| FY 2004 Eqpt -- kits | | | | | | | | | | | 1183 | | 846 | | | | | | | | 2182 |
| FY 2005 Eqpt -- kits | | | | | | | | | | | | | 728 | | 526 | | | | | | 2182 |
| TC Equip-Kits | | | | | | | | | | | | | | | 1274 | | 908 | | | | 3090 |
| Total Installment | | | 635 | | 1631 | | 1473 | | 1254 | | 1658 | | 1574 | | 1800 | | 3090 | | | | 13115 |
| Total Procurement Cost | | 1.3 | | 1.1 | | 1.0 | | 0.8 | | 1.3 | | 0.9 | | 1.3 | | 1.3 | | | | | 9.1 |

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

Appropriation / Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat Vehicles
 P-1 Item Nomenclature: ITEMS LESS THAN \$5.0M (WOCV-WTCV) (GL3200)

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

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 64.2 | 0.9 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 0.0 | 75.4 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 64.2 | 0.9 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 0.0 | 75.4 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 64.2 | 0.9 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 0.0 | 75.4 |
| 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 are required to support AAO shortages, field replacements and training requirements.

| Exhibit P-5, Weapon WTCV Cost Analysis | | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | | | P-1 Line Item Nomenclature: ITEMS LESS THAN \$5.0M (WOCV-WTCV) (GL3200) | | | Weapon System Type: | | Date: February 1999 | |
|--|------|---|---|------|----------|--------------|------|---|--------------|------|---------------------|--------------|------------------------|----------|
| WTCV Cost Elements | | | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | | 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 Guage | G124 | A | 100 | 400 | | 100 | 400 | | 100 | 400 | | | | |
| 2. Shop Equip, Small Arms Repair, Shelter Mtd 4940-00-209-6236 | G337 | A | 147 | 4 | 37 | 38 | 1 | 38 | | | | | | |
| 3. Tool Set, Instrument and Fire Control FM 4931-00-754-0740 | G371 | A | 31 | 2 | 16 | | | | 56 | 2 | 28 | 56 | 2 | 28 |
| 4. Shop Set, Small Arms, Field Maint, PCS Set D 4933-00-348-7396 | G385 | A | 69 | 1 | 69 | 150 | 2 | 75 | | | | 150 | 2 | 75 |
| 5. Shop Set, Small Arms FM Basic 4933-00-754-0664 | G723 | A | | | | 19 | 1 | 19 | 19 | 1 | 19 | 38 | 2 | 19 |
| 6. Tool Set Battalion Maint 4940-01-140-2364 | G427 | A | 471 | 70 | 7 | 520 | 65 | 8 | 532 | 66 | 8 | 456 | 57 | 8 |
| 7. Tool Kit, Electronic Sys Maint 5180-01-168-0487 | S380 | A | 467 | 94 | 5 | 334 | 56 | 6 | 465 | 78 | 6 | 457 | 76 | 6 |
| 8. Engineering Support for GL3200 budget line | | | | | | | | | 34 | 1 | 34 | 36 | 1 | 36 |
| TOTAL | | | 1285 | | | 1161 | | | 1206 | | | 1193 | | |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 739.7 | 4.6 | 6.1 | 5.1 | 4.6 | 5.2 | 5.5 | 4.9 | 5.6 | 5.8 | 0.0 | 787.0 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 739.7 | 4.6 | 6.1 | 5.1 | 4.6 | 5.2 | 5.5 | 4.9 | 5.6 | 5.8 | 0.0 | 787.0 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 739.7 | 4.6 | 6.1 | 5.1 | 4.6 | 5.2 | 5.5 | 4.9 | 5.6 | 5.8 | 0.0 | 787.0 |
| 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 FY00 and FY01 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 and excess individual items of Industrial Plant Equipment which is excess to production requirements at Rock Island and Watervliet Arsenals. Funds will also be used to provide preservation for Government-owned equipment and real property facilities to allow subsequent cost-effective Operation and Maintenance, Army storage.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | | | | Weapon System Type: | | | Date: February 1999 | | |
|---|----|---|------|----------|--------------|------|----------|---------------------|------|----------|------------------------|------|----------|
| WTCV Cost Elements | | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| ID | 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 Provides funds to replace, modernize and upgrade equipment and instrumentation used in production testing of Wpns & Trkd Cmbt Vehs. Upgrading will be performed on automotive performance test equipment, vehicle dynamics, high speed imaging, interior exterior ballistics support inst, and toxic fumes instrumentation. | | 1.753 | | | 1.464 | | | 1.227 | | | 1.548 | | |
| 09X5268 MOD, Yuma Proving Grounds Provides funds to replace, modernize and upgrade equip/instrumentation used in production testing of WTCV. | | 1.480 | | | 1.435 | | | 1.226 | | | 1.418 | | |
| 09X5269 PSR, White Sands Missile Range Provides funds to replace, modernize and upgrade equip/instrumentation used in production testing at WSMR. | | 0.743 | | | 0.542 | | | 0.454 | | | 0.550 | | |
| 69X7667 LIF, Rock Isl & Watervliet Arsenal Provides funds for Layaway and Redistribution of Government-Owned equipment and preservation of equipment to include portions of plants which are no longer required for active production, but must be retained for future use. Also provides for plant clearance/preparation of equipment to be excessed. | | 2.091 | | | 1.686 | | | 1.659 | | | 1.686 | | |
| TOTAL | | 6.067 | | | 5.127 | | | 4.566 | | | 5.202 | | |

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 49.1 | 5.1 | 2.9 | 3.9 | 3.1 | 3.6 | 4.3 | 3.3 | 2.8 | 2.7 | 0.0 | 80.8 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 49.1 | 5.1 | 2.9 | 3.9 | 3.1 | 3.6 | 4.3 | 3.3 | 2.8 | 2.7 | 0.0 | 81.3 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 49.1 | 5.1 | 2.9 | 3.9 | 3.1 | 3.6 | 4.3 | 3.3 | 2.8 | 2.7 | 0.0 | 80.8 |
| 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 FY00 and FY01 request supports the equipment and facilities at Rock Island Arsenal, Watervliet Arsenal, and Hawthorne Army Depot. It includes the overhead costs attributed to the laidaway portions of the Arsenal. Funds will also be used for the storage and maintenance costs of equipment which has been laidaway for future production.

Exhibit P-40, Budget Item Justification Sheet

Date: February 1999

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 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 2.4 | 5.2 | 4.5 | 5.2 | 5.2 | 3.5 | 0.3 | 2.0 | 2.5 | 2.0 | 0.0 | 32.8 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 2.4 | 5.2 | 4.5 | 5.2 | 5.2 | 3.5 | 0.3 | 2.0 | 2.5 | 2.0 | 0.0 | 32.8 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 2.4 | 5.2 | 4.5 | 5.2 | 5.2 | 3.5 | 0.3 | 2.0 | 2.5 | 2.0 | 0.0 | 32.8 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

DESCRIPTION: This program provides small arms equipment for the soldier. Funding identified in FY00/FY01 will provide the soldiers with a Dual Mount, an M203/M4 Fire Control Device and a Sniper Accessory Kit. 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. The M203 Enhanced Fire Control Device provides the soldier with a reliable, man-portable interface/platform capable of allowing the soldier to utilize the weapon system to achieve significantly increased first round probability of hit on point and area targets at the maximum effective range of the system. The Sniper Accessory Kit provides the sniper with a kit to assist him in his special missions. The kit will contain a hand held wind meter, a low profile bipod, a polarized filter for a day scope, a compact cleaning kit and an adjustable cheek piece to steady the soldiers aim. All of these components are available as non-developmental items.

JUSTIFICATION: 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. The existing M203 sighting system incorporates approximation of range to the target and interpolation of the front and rear sight for aiming with lead to inaccuracy of rounds fired. This requires subsequent rounds to be adjusted on target. Due to the relative proximate range of the weapon, the fire is jeopardized and susceptible to counterfire from the targeted enemy. This program will provide a fire control device for the M203 weapon system that is quicker and more accurate to use. This device will save ammunition and subject the user to less counterfire. The Soldier Enhancement program (SEP) was established by Congress to provide essential equipment for the individual soldier such as the Sniper Accessory Kit. Tasks under SEP are accomplished in an expedited manner.

| Exhibit P-5, Weapon WTCV Cost Analysis | | Appropriation/ Budget Activity/Serial No: PROCUREMENT OF WPNS & TRKD CMBT VEHS / 2 / Weapons and Other Combat | | | P-1 Line Item Nomenclature: SMALL ARMS (SOLDIER ENH PROG) (GC0076) | | | Weapon System Type: | | | Date: February 1999 | | | |
|---|---|---|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| WTCV Cost Elements | | ID | FY 98 | | | FY 99 | | | FY 00 | | | FY 01 | | |
| | | 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 | | | | | | | | | | | | | | |
| MK93 MOD 1 DUAL MOUNT | A | | 866 | | | 2717 | 1241 | 2 | 3465 | 1614 | 2 | | | |
| Dual Mount - New Contract | A | | | | | 198 | | | | | | | | |
| MK93 MOD1 (ECP) | | | | | | | | | | | | | | |
| HMMWV Mount M998 (Quantity) | A | | 896 | 660 | 1 | | | | | | | | | |
| HMMWV Mount M1025/1026 (Quantity) | A | | 464 | 2400 | | 905 | 2550 | | | | | | | |
| Dismount Kits | A | | 1765 | 2000 | 1 | | | | | | | | | |
| M203/M4 Fire Control | | | | | | | | | 835 | 835 | 1 | 2378 | 2378 | 1 |
| Sniper Accessory Kit | | | | | | | | | | | | 727 | 2550 | |
| 2. ESIP | | | | | | | | | | | | | | |
| Dual Mount | | | 100 | | | 270 | | | 326 | | | | | |
| HMMWV M249 Mount | | | 274 | | | 250 | | | | | | | | |
| M203/M4 Fire Control | | | | | | | | | 225 | | | 125 | | |
| Sniper Accessory Kit | | | | | | | | | | | | 70 | | |
| 3. Testing | | | | | | | | | | | | | | |
| Dual Mount | | | | | | 50 | | | 60 | | | | | |
| HMMWV M249 Mount | | | | | | 207 | | | | | | | | |
| M203/M4 Fire Control | | | | | | | | | 25 | | | | | |
| Sniper Accessory Kit | | | | | | | | | | | | | | |
| 4. Integrated Logistics Support | | | | | | | | | | | | | | |
| Dual Mount | | | | | | | | | | | | | | |
| HMMWV M249 Mount | | | 50 | | | 200 | | | | | | | | |
| M203/M4 Fire Control | | | | | | | | | 50 | | | 25 | | |
| Sniper Accessory Kit | | | | | | | | | | | | 30 | | |
| 5. Fielding | | | | | | | | | | | | | | |
| HMMWV M249 Mount | | | 50 | | | 230 | | | | | | | | |
| M203/M4 Fire Control | | | | | | | | | 25 | | | 15 | | |
| Sniper Accessory Kit | | | | | | | | | | | | 23 | | |
| 6. PM-SA Support (Previously funded under OMA) | | | | | | 192 | | | 203 | | | 148 | | |
| TOTAL | | | 4465 | | | 5219 | | | 5214 | | | 3541 | | |

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 1999

| 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: 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 |
| HMMWV MOUNT/FY98 | Ramo Manufacture Inc. | C/FFP | ARDEC | | | | | | | |
| M6 Pedestal | Nashville, Tn | (Option) | | Mar-98 | Jan-99 | 660 | 2 | | | |
| M197 Mount | Ma-Tech Inc, Hebron, Va | SS/8A | ACALA | Sep-98 | Mar-99 | 2400 | | | | Jan 98 |
| M122 Pintle Mounts | Marathon Tech Inc, Elk Grove, IL | C/FFP | ACALA | Sep-98 | Mar-99 | 2400 | | | | |
| HMMWV MOUNT/FY99 | | | | | | | | | | |
| M197 Mount | Ma-Tech Inc, Hebron, Va | SS/8A | ACALA | Jan-99 | Dec-99 | 2550 | | | | |
| Dismount Kits/FY98 | FNMI, Columbia, SC | SS/FFP | ACALA | Sep-98 | Feb-99 | 2000 | 1 | | | |
| Dual Mount/FY99 | TBS | C/FFP | ACALA | Mar-99 | Jan-00 | 1241 | 2 | | | |
| M203/M4 Fire Control/FY00 | TBS | C/FFP | ARDEC | Jul-00 | Apr-01 | 835 | 1 | | | Oct 99 |
| M203/M4 Fire Control/FY01 | TBS (Option) | C/FFP | ARDEC | Jul-01 | Aug-01 | 2378 | 1 | | | |
| Sniper Accessory Kits/FY01 | TBS | C/FFP | ARDEC | Apr-01 | Oct-01 | 2550 | | | | Jun 99 |

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date:

February 1999

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF WPNS & TRKD CMBT VEHS / 3 / Spares and Repair Parts

P-1 Item Nomenclature:

SPARES AND REPAIR PARTS (WTCV) (GE0150)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

| | Prior Years | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty | | | | | | | | | | | | |
| Gross Cost | 0.0 | 0.0 | 16.1 | 23.2 | 22.8 | 28.7 | 37.7 | 42.4 | 38.6 | 46.3 | 0.0 | 255.8 |
| Less PY Adv Proc | | | | | | | | | | | | |
| Plus CY Adv Proc | | | | | | | | | | | | |
| Net Proc (P-1) | 0.0 | 0.0 | 16.1 | 23.2 | 22.8 | 28.7 | 37.7 | 42.4 | 38.6 | 46.3 | 0.0 | 255.8 |
| Initial Spares | | | | | | | | | | | | |
| Total Proc Cost | 0.0 | 0.0 | 16.1 | 23.2 | 22.8 | 28.7 | 37.7 | 42.4 | 38.6 | 46.3 | 0.0 | 255.8 |
| Flyaway U/C | | | | | | | | | | | | |
| Wpn Sys Proc U/C | | | | | | | | | | | | |

Description: Provides for procurement of spares to support initial fielding of new or modified end items.

Justification: 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:

| <u>System</u> | <u>FY 1998</u> | <u>FY 1999</u> | <u>FY 2000</u> | <u>FY 2001</u> |
|---------------|----------------|----------------|----------------|----------------|
| GE0161 M1A2 | 13.4 | 9.8 | 9.8 | 15.0 |
| GE0163 BFVS | 0.3 | 7.1 | 9.2 | 11.6 |
| GE0167 M109 | 0.7 | 0.0 | 0.0 | 0.0 |
| GE0171 IRV | 0.0 | 2.9 | 0.0 | 0.0 |
| GEO173 C2V | 0.9 | 2.5 | 2.6 | 0.7 |
| GEO177 HAB | 0.9 | 0.9 | 1.3 | 1.4 |
| Total | 16.1 | 23.2 | 22.8 | 28.7 |