

***Ammo ... PFORMS***

| <b>Item</b> | <b>Item</b> | <b>Item</b> | <b>Item</b> | <b>Item</b> | <b>Item</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|
| 40132159    | 41450159    | 42430159    | 43246159    | 44758159    | 47086119    |
| 40532159    | 41516132    | 42431159    | 43972159    | 44770119    | 47382159    |
| 40572120    | 41540159    | 42624159    | 44096120    | 45700114    | 47902159    |
| 40612159    | 41722159    | 42650160    | 44100120    | 45822114    | 47922122    |
| 40684119    | 41848159    | 42790160    | 44150120    | 46038160    | 48250119    |
| 40684159    | 42234159    | 42922120    | 44262114    | 46550114    | 48278159    |
| 41178132    | 42246132    | 42938159    | 44370159    | 46767159    | 48832119    |
| 41266119    | 42382159    | 43222159    | 44582160    | 46796119    | 49622122    |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 5.56MM, ALL TYPES (E00700)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 1526.0      | 81.5    | 58.2    | 40.7    | 63.5    | 91.6    | 95.3    | 98.7    | 100.1   | 97.3    | 0.0         | 2252.9     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 1526.0      | 81.5    | 58.2    | 40.7    | 63.5    | 91.6    | 95.3    | 98.7    | 100.1   | 97.3    | 0.0         | 2252.9     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 1526.0      | 81.5    | 58.2    | 40.7    | 63.5    | 91.6    | 95.3    | 98.7    | 100.1   | 97.3    | 0.0         | 2252.9     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes 5.56MM ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |        | P-1 Line Item Nomenclature:<br>CTG, 5.56MM, ALL TYPES (E00700) |              |       | Weapon System Type: |              |        | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|--------|--|--------------|-------|---------------------|--------------|--------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |        |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |        |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty    | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty    | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000  | \$   | \$000        | x1000 | \$                  | \$000        | x1000  | \$                     | \$000        | x1000 | \$       |
| CTG 5.56MM BALL M193                              |  |  |              |        |  | 3845         | 14318 | 0.27                |              |        |                        | 14487        | 64009 | 0.23     |
| CTG 5.56MM BLANK M200                             |  |  |              |        |  |              |       |                     | 3933         | 18460  | 0.21                   | 15096        | 83163 | 0.18     |
| CTG 5.56MM BLANK M200 LINKED F/SAW                |  |  | 7122         | 18742  | 0.38   | 999          | 2560  | 0.39                | 14617        | 41278  | 0.35                   | 12169        | 45497 | 0.27     |
| CTG 5.56MM BALL M855 LINKED F/SAW                 |  |  | 4304         | 7550   | 0.57   |              |       |                     | 4281         | 9582   | 0.45                   | 5506         | 16518 | 0.33     |
| CTG 5.56MM 4 BALL M855/1 TRACER M856              |  |  | 700          |        |  | 19087        | 36704 | 0.52                |              |        |                        | 9897         | 27514 | 0.36     |
| CTG 5.56MM BALL M855 F/M16A2                      |  |  | 45189        | 115870 | 0.39   | 16764        | 42984 | 0.39                | 37241        | 102149 | 0.36                   | 28679        | 97594 | 0.29     |
| CTG 5.56MM TRACER M856 F/M16A2                    |  |  | 850          | 1491   | 0.57   |              |       |                     | 3459         | 6509   | 0.53                   | 2526         | 6287  | 0.40     |
| CTG 5.56MM RIFLE LAUNCHER,<br>NON-LETHAL, XM95    |  |  |              |        |  |              |       |                     |              |        |                        | 3260         | 90    | 36.22    |
| <b>TOTAL</b>                                      |  |  | <b>58165</b> |        |  | <b>40695</b> |       |                     | <b>63531</b> |        |                        | <b>91620</b> |       |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM BALL M193 (E00701)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 12765522    |         |         | 14318   |         | 64009   | 35201   | 35201   | 35201   | 35201   |             | 12984653   |
| Gross Cost       | 891.7       | 0.0     | 0.0     | 3.8     | 0.0     | 14.5    | 8.1     | 8.2     | 8.3     | 8.4     | 0.0         | 943.0      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 891.7       | 0.0     | 0.0     | 3.8     | 0.0     | 14.5    | 8.1     | 8.2     | 8.3     | 8.4     | 0.0         | 943.0      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 891.7       | 0.0     | 0.0     | 3.8     | 0.0     | 14.5    | 8.1     | 8.2     | 8.3     | 8.4     | 0.0         | 943.0      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 5.56mm Ball M193 is an anti-personnel cartridge containing a 56 grain, gilding metal-jacketed bullet with a lead antimony core. It is issued for use in the M16/M16A1 series rifle. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1975

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 5.56MM BALL M193 (E00701) A066 |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  |              |       |   | 2700         | 14318 | 0.19                |              |       |                        | 12482        | 64009 | 0.20        |
| Box Metal M2A1                                    |  |  |              |       |   | 90           | 18    | 5.03                |              |       |                        | 445          | 80    | 5.57        |
| Propellant WC844 (LB)                             |  |  |              |       |   | 340          | 59    | 5.74                |              |       |                        |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |   | <b>3130</b>  |       |                     |              |       |                        | <b>12927</b> |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Production Engineering                            |  |  |              |       |   | 141          |       |                     |              |       |                        | 1287         |       |             |
| Quality Assurance                                 |  |  |              |       |   | 4            |       |                     |              |       |                        | 7            |       |             |
| Interim Transportation                            |  |  |              |       |   | 34           |       |                     |              |       |                        | 7            |       |             |
| Industrial Stock Support                          |  |  |              |       |   | 125          |       |                     |              |       |                        | 259          |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |   | <b>381</b>   |       |                     |              |       |                        | <b>1560</b>  |       |             |
| <b>TOTAL</b>                                      |  |  |              |       |   | <b>3845</b>  |       | <b>0.27</b>         |              |       |                        | <b>14487</b> |       | <b>0.23</b> |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type: \_\_\_\_\_  
 P-1 Line Item Nomenclature: CTG 5.56MM BALL M193 (E00701)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                      | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 94   | Olin Corp (Lake City AAP)<br>Independence MO | SS/CPAF                  | IOC             | Nov-93     | Oct-94                 | 30233     | 0.19         |                  |                  |                |
| FY 97                              | Olin Corp (Lake City AAP)<br>Independence MO | SS/CPAF                  | IOC             | Mar-97     | Oct-97                 | 14318     | 0.19         | Yes              |                  | Dec-96         |
| FY 99                              | Olin Corp (Lake City AAP)<br>Independence MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 64009     | 0.20         | Yes              |                  | Oct-98         |
| Box Metal M2A1<br>FY 94            | Brockway Standard<br>Homerville, GA          | C/FP                     | IOC             | Jan-94     | Jul-94                 | 38        | 5.68         |                  |                  |                |
| FY 97                              | Brockway Standard<br>Homerville, GA          | C/FP                     | IOC             | May-97     | Aug-97                 | 18        | 5.03         | Yes              |                  | Feb-97         |
| FY 99                              | TBS  | C/FP                     | IOC             | Jan-99     | Jul-99                 | 80        | 5.57         | Yes              |                  | Oct-98         |
| Propellant WC844 (LB)<br>FY 94     | Olin Corp<br>St. Marks, FL                   | SS/FP                    | IOC             | Aug-94     | Sep-94                 | 128       | 5.98         |                  |                  |                |
| FY 97                              | Olin Corp<br>St. Marks, FL                   | SS/FP                    | IOC             | Jul-97     | Sep-97                 | 59        | 5.74         | Yes              |                  | Apr-97         |
| FY 99                              | Plant Procured                               | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM BLANK M200 (E01100)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 3044377     | 89381   |         |         | 18460   | 83163   | 86131   | 85559   | 85559   | 85559   |             | 3578189    |
| Gross Cost       | 272.1       | 19.7    | 0.0     | 0.0     | 3.9     | 15.1    | 13.9    | 14.0    | 14.2    | 14.3    | 0.0         | 367.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 272.1       | 19.7    | 0.0     | 0.0     | 3.9     | 15.1    | 13.9    | 14.0    | 14.2    | 14.3    | 0.0         | 367.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 272.1       | 19.7    | 0.0     | 0.0     | 3.9     | 15.1    | 13.9    | 14.0    | 14.2    | 14.3    | 0.0         | 367.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This cartridge is used for simulated firing in training maneuvers and for saluting purposes in the M16 Series Rifle and Squad Automatic Weapon. A blank-firing attachment on the weapon is required for firing automatic or semi-automatic weapons. The cartridge can be identified by the rose petal (rosette crimp) closure on the mouth and by the identification knurl about one-half inch from the base of the cartridge. The mouth of the cartridge is sealed and identified with lacquer. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

Prior to 1977

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 5.56MM BLANK M200 (E01100) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  |              |       |   |              |       |                     | 3179         | 18460 | 0.17                   | 12408        | 83163 | 0.15        |
| Box Metal M2A1                                    |  |  |              |       |   |              |       |                     | 94           | 16    | 5.74                   | 412          | 74    | 5.57        |
| Propellant WC814 (LB)                             |  |  |              |       |   |              |       |                     | 121          | 18    | 6.55                   |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |   |              |       |                     | <b>3394</b>  |       |                        | <b>12820</b> |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       | VAR         |
| Production Engineering                            |  |  |              |       |   |              |       |                     | 347          |       |                        | 2010         |       |             |
| Quality Assurance                                 |  |  |              |       |   |              |       |                     | 8            |       |                        | 4            |       |             |
| Acceptance Testing                                |  |  |              |       |   |              |       |                     | 39           |       |                        |              |       |             |
| Interim Transportation                            |  |  |              |       |   |              |       |                     | 24           |       |                        | 6            |       |             |
| Industrial Stock Support                          |  |  |              |       |   |              |       |                     | 121          |       |                        | 256          |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |   |              |       |                     | <b>539</b>   |       |                        | <b>2276</b>  |       |             |
| <b>TOTAL</b>                                      |  |  |              |       |   |              |       |                     | <b>3933</b>  |       | <b>0.21</b>            | <b>15096</b> |       | <b>0.18</b> |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **CTG 5.56MM BLANK M200 (E01100)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 94   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-93     | Oct-94                 | 90106     | 0.16         |                  |                  |                |
| FY 98                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Mar-98     | Oct-98                 | 18460     | 0.17         | Yes              |                  | Oct-97         |
| FY 99                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 83163     | 0.15         | Yes              |                  | Oct-98         |
| Box Metal M2A1<br>FY 94            | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Jan-94     | Jul-94                 | 81        | 5.68         |                  |                  |                |
| FY 98                              | TBS   | C/FP                     | IOC             | May-98     | Sep-98                 | 16        | 5.74         | Yes              |                  | Oct-97         |
| FY 99                              | TBS   | C/FP                     | IOC             | Jan-99     | Jul-99                 | 74        | 5.57         | Yes              |                  | Oct-98         |
| Propellant WC814 (LB)<br>FY 94     | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-94     | Sep-94                 | 92        | 5.98         |                  |                  |                |
| FY 98                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98     | Sep-98                 | 18        | 6.55         | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS:  
TBS - To Be Selected

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |     |      |                |                       | P-1 Item Nomenclature: CTG 5.56MM BLANK M200 (E01100) |                  |     |     |     |     |     |     |     |     |     |     | Date: February 1998 |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|---------------------------------------|-----|-----|------|----------------|-----------------------|---|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| COST ELEMENTS                         | MFR | FY  | SERV | PROC QTY x1mil | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT                                   | Fiscal Year 98   |     |     |     |     |     |     |     |     |     |     |                     | Fiscal Year 99   |     |     |     |     |     |     |     |     |     |     |     | L A T E R |
|                                       |     |     |      |                |                       |   | Calendar Year 98 |     |     |     |     |     |     |     |     |     |     |                     | Calendar Year 99 |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |     |     |      |                |                       |   | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP                 | OCT              | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |           |
| Load, Assemble and Pack               |     |     |      |                |                       |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | 98  | A    | 18             |                       | 18  |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | 99  | A    | 83             |                       | 83  |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     | 83  |     |     |     |           |
|                                       | 1   | 96P | MC   | 17             | 17                    |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | 99  | MC   | 36             |                       | 36  |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     | 36  |     |     |     |           |
|                                       | 1   | 97  | SOF  | 1              |                       | 1   | 0.5              | 0.5 |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | 98  | SOF  | 1              |                       | 1   |                  |     |     |     |     |     |     | 0.5 | 0.5 |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       | 1   | 99  | SOF  | 1.1            |                       | 1.1   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     | 1.1 |     |     |     |           |
|                                       |     | 96P | ALL  | 17             | 17                    |   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |     | 97  | ALL  | 1              |                       | 1   | 0.5              | 0.5 |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     |     |     |     |     |           |
|                                       |     | 98  | ALL  | 19             |                       | 19  |                  |     |     |     |     |     |     | 1.5 | 1.5 | 1   | 1   | 1                   | 1                | 2   | 2   | 2   | 2   | 2   | 2   |     |     |     |     |     |           |
|                                       |     | 99  | ALL  | 120            |                       | 120   |                  |     |     |     |     |     |     |     |     |     |     |                     |                  |     |     |     |     |     |     |     | 120 |     |     |     |           |

  

| 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   | Lake City AAP, MO |                  | 21.2  | 68.3 | 5          |            | 6               | 2            | 11               | 13                 |         |
|     |                   |                  |       |      |            |            | 6               | 2            | 11               | 13                 |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |
|     |                   |                  |       |      |            |            |                 |              |                  |                    |         |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM BLANK M200 LINKED F/SAW (E01101)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 177469      | 14347   | 18742   | 2560    | 41278   | 45497   | 51548   | 45075   | 45075   | 45075   |             | 486666     |
| Gross Cost       | 41.8        | 5.2     | 7.1     | 1.0     | 14.6    | 12.2    | 13.8    | 12.2    | 12.4    | 12.6    | 0.0         | 132.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 41.8        | 5.2     | 7.1     | 1.0     | 14.6    | 12.2    | 13.8    | 12.2    | 12.4    | 12.6    | 0.0         | 132.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 41.8        | 5.2     | 7.1     | 1.0     | 14.6    | 12.2    | 13.8    | 12.2    | 12.4    | 12.6    | 0.0         | 132.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 5.56mm blank M200 round is a standard blank cartridge currently used during training to simulate live-ammunition noises and flash. This round is linked in 200 round belts and loaded into a plastic ammunition container that attaches directly to the M249 Squad Automatic Weapon (SAW). Four plastic containers are packed in a PA108 container. The M249 SAW is a lightweight, belt-fed, one-man operable machine gun. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 5.56MM BLANK M200 LINKED F/SAW<br>(E01101) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  | 5149         | 18742 | 0.27  | 767          | 2560  | 0.30                | 11640        | 41278 | 0.28                   | 11729        | 45497 | 0.26        |
| Propellant WC814 (LB)                             |  |  | 122          | 19    | 6.50  | 15           | 3     | 5.83                | 271          | 41    | 6.55                   |              |       |             |
| Link M27  |  |  | 329          | 19492 | 0.02  | 39           | 2624  | 0.02                | 703          | 42103 | 0.02                   |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>5600</b>  |       |   | <b>821</b>   |       |                     | <b>12614</b> |       |                        | <b>11729</b> |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Production Engineering                            |  |  | 174          |       |   | 38           |       |                     | 1289         |       |                        | 201          |       |             |
| Quality Assurance                                 |  |  | 8            |       |   | 1            |       |                     | 32           |       |                        | 4            |       |             |
| Acceptance Testing                                |  |  | 64           |       |   | 9            |       |                     | 145          |       |                        |              |       |             |
| Interim Transportation                            |  |  | 21           |       |   | 8            |       |                     | 91           |       |                        |              |       |             |
| Industrial Stock Support                          |  |  | 231          |       |   | 23           |       |                     | 446          |       |                        | 235          |       |             |
| CAWCF Gain/Loss Surcharge                         |  |  | 1024         |       |   | 99           |       |                     |              |       |                        |              |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>1522</b>  |       |   | <b>178</b>   |       |                     | <b>2003</b>  |       |                        | <b>440</b>   |       |             |
| <b>TOTAL</b>                                      |  |  | <b>7122</b>  |       | <b>0.38</b>   | <b>999</b>   |       | <b>0.39</b>         | <b>14617</b> |       | <b>0.35</b>            | <b>12169</b> |       | <b>0.27</b> |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 5.56MM BLANK M200 LINKED F/SAW (E01101)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Feb-96     | Oct-96                 | 18742        | 0.27            |                  |                  |                |
| FY 97                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Feb-97     | Aug-98                 | 2560         | 0.30            | Yes              |                  | Dec-96         |
| FY 98                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-98     | Oct-98                 | 41278        | 0.28            | Yes              |                  | Oct-97         |
| FY 99***                           | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 45497        | 0.26            | Yes              |                  | Oct-98         |
| Propellant WC814 (LB)<br>FY 96     | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Apr-96     | Sep-96                 | 19           | 6.50            |                  |                  |                |
| FY 97                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Jul-97     | Dec-97                 | 3            | 5.83            | Yes              |                  | May-97         |
| FY 98                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98     | Sep-98                 | 41           | 6.55            | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |
| Link M27<br>FY 96                  | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Apr-96     | Aug-96                 | 19492        | 0.02            |                  |                  |                |
| FY 97                              | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Jun-97     | Sep-97                 | 2624         | 0.02            | Yes              |                  | Apr-97         |
| FY 98                              | TBS   | C/FP                     | IOC             | Mar-98     | Aug-98                 | 42103        | 0.02            | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |

REMARKS: \*\*\*Complete Round  
TBS - To Be Selected







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM BALL M855 LINKED F/SAW (E04603)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 37885       | 491     | 7550    |         | 9582    | 16518   | 12038   | 12048   | 12048   | 12048   |             | 120208     |
| Gross Cost       | 11.5        | 0.2     | 4.3     | 0.0     | 4.3     | 5.5     | 4.1     | 4.2     | 4.2     | 4.3     | 0.0         | 42.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 11.5        | 0.2     | 4.3     | 0.0     | 4.3     | 5.5     | 4.1     | 4.2     | 4.2     | 4.3     | 0.0         | 42.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 11.5        | 0.2     | 4.3     | 0.0     | 4.3     | 5.5     | 4.1     | 4.2     | 4.2     | 4.3     | 0.0         | 42.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The Squad Automatic Weapon (SAW) ball round, M855, has a steel, conical insert in the ogive of the bullet. This round will be linked in 200 round belts using the M27 link. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. This round is used primarily for training in areas where a fire hazard exists if the tracer round were to be used. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 5.56MM BALL M855 LINKED F/SAW<br>(E04603) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  | 3039         | 7550  | 0.40   |              |       |                     | 3280         | 9582  | 0.34                   | 5349         | 16518 | 0.32        |
| Propellant WC844 (LB)                             |  |  | 194          | 30    | 6.42   |              |       |                     | 251          | 38    | 6.55                   |              |       |             |
| Link M27  |  |  | 128          | 7739  | 0.02   |              |       |                     | 163          | 9774  | 0.02                   |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>3361</b>  |       |  |              |       |                     | <b>3694</b>  |       |                        | <b>5349</b>  |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |             |
| Production Engineering                            |  |  | 104          |       |  |              |       |                     | 378          |       |                        | 46           |       |             |
| Quality Assurance                                 |  |  | 5            |       |  |              |       |                     | 9            |       |                        | 4            |       |             |
| Acceptance Testing                                |  |  | 39           |       |  |              |       |                     | 42           |       |                        |              |       |             |
| Interim Transportation                            |  |  | 13           |       |  |              |       |                     | 27           |       |                        |              |       |             |
| Industrial Stock Support                          |  |  | 168          |       |  |              |       |                     | 131          |       |                        | 107          |       |             |
| CAWCF Gain/Loss Surcharge                         |  |  | 614          |       |  |              |       |                     |              |       |                        |              |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>943</b>   |       |  |              |       |                     | <b>587</b>   |       |                        | <b>157</b>   |       |             |
| <b>TOTAL</b>                                      |  |  | <b>4304</b>  |       | <b>0.57</b>  |              |       |                     | <b>4281</b>  |       | <b>0.45</b>            | <b>5506</b>  |       | <b>0.33</b> |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **CTG 5.56MM BALL M855 LINKED F/SAW (E04603)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jun-96     | Oct-96                 | 7550      | 0.40         |                  |                  |                |
| FY 98                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-98     | Oct-98                 | 9582      | 0.34         | Yes              |                  | Oct-97         |
| FY 99                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 16518     | 0.32         | Yes              |                  | Oct-98         |
| Propellant WC844 (LB)<br>FY 96     | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Sep-96     | Sep-96                 | 30        | 6.42         |                  |                  |                |
| FY 98                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98     | Sep-98                 | 38        | 6.55         | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |
| Link M27<br>FY 96                  | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Sep-96     | Sep-96                 | 7739      | 0.02         |                  |                  |                |
| FY 98                              | TBS   | C/FP                     | IOC             | Mar-98     | Aug-98                 | 9774      | 0.02         | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS:  
TBS - To Be Selected





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 269226      | 18272   |         | 36704   |         | 27514   | 35000   | 37300   | 37700   | 37700   |             | 499416     |
| Gross Cost       | 96.0        | 9.3     | 0.7     | 19.1    | 0.0     | 9.9     | 13.0    | 14.1    | 14.4    | 14.5    | 0.0         | 191.0      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 96.0        | 9.3     | 0.7     | 19.1    | 0.0     | 9.9     | 13.0    | 14.1    | 14.4    | 14.5    | 0.0         | 191.0      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 96.0        | 9.3     | 0.7     | 19.1    | 0.0     | 9.9     | 13.0    | 14.1    | 14.4    | 14.5    | 0.0         | 191.0      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M855 ball and M856 tracer rounds are linked for use in the lightweight, one-man operable M249 Squad Automatic Weapon (SAW). The ball round has a steel, conical insert in the ogive of the bullet, which increases helmet penetration substantially compared to the 5.56mm, M193 ball round. The tracer round M856 has a longer tracer column and an improved pyrotechnic mixture, which results in an increased daylight trace range compared to the 5.56mm M196 tracer round. The rounds are linked in a 200 round belt using the M27 link and are loaded into a plastic container which attaches directly to the M249 SAW. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1982



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 5.56MM 4 BALL M855/1 TRACER M856<br>F/S (E04604) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  |              |       |   | 14803        | 36704 | 0.40                |              |       |                        | 9737         | 27514 | 0.35        |
| Propellant WC844T (LB)                            |  |  |              |       |   | 171          | 29    | 5.83                |              |       |                        |              |       |             |
| Propellant WC844 (LB)                             |  |  |              |       |   | 706          | 121   | 5.83                |              |       |                        |              |       |             |
| Link M27  |  |  |              |       |   | 564          | 37621 | 0.02                |              |       |                        |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |   | <b>16244</b> |       |                     |              |       |                        | <b>9737</b>  |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Production Engineering                            |  |  |              |       |   | 598          |       |                     |              |       |                        | 84           |       |             |
| Quality Assurance                                 |  |  |              |       |   | 23           |       |                     |              |       |                        | 4            |       |             |
| Acceptance Testing                                |  |  |              |       |   | 177          |       |                     |              |       |                        |              |       |             |
| Interim Transportation                            |  |  |              |       |   | 154          |       |                     |              |       |                        | 72           |       |             |
| Industrial Stock Support                          |  |  |              |       |   | 1891         |       |                     |              |       |                        |              |       |             |
| CAWCF Gain/Loss Surcharge                         |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |   | <b>2843</b>  |       |                     |              |       |                        | <b>160</b>   |       |             |
| <b>Nonrecurring</b>                               |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Materiel Change                                   |  |  | 700          |       |   |              |       |                     |              |       |                        |              |       |             |
| <b>Subtotal Nonrecurring</b>                      |  |  | <b>700</b>   |       |   |              |       |                     |              |       |                        |              |       |             |
| <b>TOTAL</b>                                      |  |  | <b>700</b>   |       |   | <b>19087</b> |       | <b>0.52</b>         |              |       |                        | <b>9897</b>  |       | <b>0.36</b> |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 95   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Dec-94     | Feb-96                 | 18449     | 0.37         |                  |                  |                |
| FY 95                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Dec-97     | Oct-98                 | 888       | 0.38         |                  |                  |                |
| FY 97                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-97     | May-97                 | 36704     | 0.40         | Yes              |                  | Nov-96         |
| FY 99***                           | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 27514     | 0.35         | Yes              |                  | Oct-98         |
| Propellant WC844T (LB)<br>FY 95    | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-95     | Jan-96                 | 14        | 6.28         |                  |                  |                |
| FY 95                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98     | Sep-98                 | 1         | 6.55         |                  |                  |                |
| FY 97                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Mar-97     | Apr-97                 | 29        | 5.83         | Yes              |                  | Jan-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |
| Propellant WC844 (LB)<br>FY 95     | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-95     | Jan-96                 | 61        | 6.28         |                  |                  |                |
| FY 95                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98     | Sep-98                 | 3         |              |                  |                  |                |
| FY 97                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Mar-97     | Apr-97                 | 121       | 5.83         | Yes              |                  | Jan-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS:

\*\*\*Complete Round

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

Date:  
February 1998

| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |                                  | Weapon System Type:      |                 | P-1 Line Item Nomenclature:<br>CTG 5.56MM 4 BALL M855/1 TRACER M856 F/S (E04604) |                        |              |                 |                  |                  |                |
|--|----------------------------------|--------------------------|-----------------|--|------------------------|--------------|-----------------|------------------|------------------|----------------|
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location          | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Link M27<br>FY 95  | Valentec Wells<br>Costa Mesa, CA | C/FP                     | IOC             | Dec-94   | Jul-95                 | 1919         | 0.02            |                  |                  |                |
| FY 95  | Valentec Wells<br>Costa Mesa, CA | C/FP                     | IOC             | Mar-98   | Aug-98                 | 906          | 0.02            |                  |                  |                |
| FY 97  | Valentec Wells<br>Cost Mesa, CA  | C/FP                     | IOC             | Jan-97   | Apr-97                 | 37621        | 0.02            | Yes              |                  | Nov-96         |
| FY 99  | Plant Procured                   | N/A                      | N/A             | N/A  | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |
| REMARKS:   |                                  |                          |                 |  |                        |              |                 |                  |                  |                |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM BALL M855 F/M16A2 (E04601)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 697228      | 127443  | 115870  | 42984   | 102149  | 97594   | 130000  | 130000  | 130000  | 130000  |             | 1703268    |
| Gross Cost       | 152.2       | 47.2    | 45.2    | 16.8    | 37.2    | 28.7    | 35.6    | 36.1    | 36.6    | 37.0    | 0.0         | 472.6      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 152.2       | 47.2    | 45.2    | 16.8    | 37.2    | 28.7    | 35.6    | 36.1    | 36.6    | 37.0    | 0.0         | 472.6      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 152.2       | 47.2    | 45.2    | 16.8    | 37.2    | 28.7    | 35.6    | 36.1    | 36.6    | 37.0    | 0.0         | 472.6      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M855 ball has a steel conical insert in the ogive of the bullet which increases the helmet-penetration range substantially compared to the 5.56mm M193 ball round. This cartridge is identified by a green bullet tip and is intended for use against personnel and non-armored targets. This item is used in the M16A2 rifle. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |        | P-1 Line Item Nomenclature:<br>CTG 5.56MM BALL M855 F/M16A2 (E04601) |              |       | Weapon System Type: |              |        | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|--------|--|--------------|-------|---------------------|--------------|--------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |        |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |        |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty    | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty    | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000  | \$   | \$000        | x1000 | \$                  | \$000        | x1000  | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |        |  |              |       |                     |              |        |                        |              |       |             |
| Load, Assemble and Pack                           |  |  | 31714        | 115870 | 0.27   | 12857        | 42984 | 0.30                | 28745        | 102149 | 0.28                   | 25228        | 97594 | 0.26        |
| Box Metal M2A1                                    |  |  | 794          | 141    | 5.62   | 266          | 52    | 5.07                | 715          | 125    | 5.74                   | 663          | 119   | 5.57        |
| Propellant WC844 (LB)                             |  |  | 3011         | 463    | 6.50   | 1002         | 172   | 5.83                | 2678         | 409    | 6.55                   |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>35519</b> |        |  | <b>14125</b> |       |                     | <b>32138</b> |        |                        | <b>25891</b> |       |             |
| <b>Production Support Costs</b>                   |  |  |              |        |  |              |       |                     |              |        |                        |              |       |             |
| Production Engineering                            |  |  | 1101         |        |  | 670          |       |                     | 3284         |        |                        | 2258         |       |             |
| Quality Assurance                                 |  |  | 50           |        |  | 20           |       |                     | 80           |        |                        | 2            |       |             |
| Acceptance Testing                                |  |  | 408          |        |  | 154          |       |                     | 370          |        |                        |              |       |             |
| Interim Transportation                            |  |  | 135          |        |  | 134          |       |                     | 231          |        |                        | 10           |       |             |
| Industrial Stock Support                          |  |  | 1483         |        |  |              |       |                     | 1138         |        |                        | 518          |       |             |
| CAWCF Gain/Loss Surcharge                         |  |  | 6493         |        |  | 1661         |       |                     |              |        |                        |              |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>9670</b>  |        |  | <b>2639</b>  |       |                     | <b>5103</b>  |        |                        | <b>2788</b>  |       |             |
| <b>TOTAL</b>                                      |  |  | <b>45189</b> |        | <b>0.39</b>  | <b>16764</b> |       | <b>0.39</b>         | <b>37241</b> |        | <b>0.36</b>            | <b>28679</b> |       | <b>0.29</b> |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |            |                        |              |                 |  |                  | Date:          |  |
|--|---|--------------------------|-----------------|------------|------------------------|--------------|-----------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |            | Weapon System Type:    |              |                 | P-1 Line Item Nomenclature:<br>CTG 5.56MM BALL M855 F/M16A2 (E04601) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| Load, Assemble and Pack<br>FY 96   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-96     | Oct-96                 | 115870       | 0.27            |  |                  |                |  |
| FY 97  | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-97     | Oct-97                 | 42984        | 0.30            | Yes  |                  | Nov-96         |  |
| FY 98  | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-98     | Oct-98                 | 102149       | 0.28            | Yes  |                  | Oct-97         |  |
| FY 99  | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 97594        | 0.26            | Yes  |                  | Oct-98         |  |
| Box Metal M2A1<br>FY 96  | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Jun-96     | Sep-96                 | 141          | 5.62            |  |                  |                |  |
| FY 97  | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | May-97     | Sep-97                 | 52           | 5.07            | Yes  |                  | Mar-97         |  |
| FY 98  | TBS   | C/FP                     | IOC             | Mar-98     | Sep-98                 | 125          | 5.74            | Yes  |                  | Oct-97         |  |
| FY 99  | TBS   | C/FP                     | IOC             | Jan-99     | Jul-99                 | 119          | 5.57            | Yes  |                  | Oct-98         |  |
| Propellant WC844 (LB)<br>FY 96   | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Apr-96     | Sep-96                 | 463          | 6.50            |  |                  |                |  |
| FY 97  | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Jul-97     | Sep-97                 | 172          | 5.83            | Yes  |                  | May-97         |  |
| FY 98  | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98     | Sep-98                 | 409          | 6.55            | Yes  |                  | Oct-97         |  |
| FY 99  | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A          | N/A             | N/A  | N/A              | N/A            |  |
| REMARKS:<br>TBS - To Be Selected   |   |                          |                 |            |                        |              |                 |  |                  |                |  |







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56MM TRACER M856 F/M16A2 (E04602)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 79269       |         | 1491    |         | 6509    | 6287    | 6080    | 8060    | 8060    | 8060    |             | 123816     |
| Gross Cost       | 23.1        | 0.0     | 0.9     | 0.0     | 3.5     | 2.5     | 2.5     | 3.3     | 3.4     | 3.4     | 0.0         | 42.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 23.1        | 0.0     | 0.9     | 0.0     | 3.5     | 2.5     | 2.5     | 3.3     | 3.4     | 3.4     | 0.0         | 42.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 23.1        | 0.0     | 0.9     | 0.0     | 3.5     | 2.5     | 2.5     | 3.3     | 3.4     | 3.4     | 0.0         | 42.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M856 tracer round has a longer tracer column and an improved pyrotechnic mixture, which results in an increased daylight trace range compared to the 5.56mm M196 tracer round. This cartridge can be identified by an orange bullet tip and is intended to permit visible observation of the bullet's in-flight path or trajectory to the point of impact. This item is used in the M16A2 rifle. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 5.56MM TRACER M856 F/M16A2<br>(E04602) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  | 614          | 1491  | 0.41  |              |       |                     | 2768         | 6509  | 0.43                   | 2375         | 6287  | 0.38        |
| Box Metal M2A1                                    |  |  | 11           | 2     | 5.62  |              |       |                     | 47           | 8     | 5.74                   | 44           | 8     | 5.57        |
| Propellant WC844T (LB)                            |  |  | 39           | 6     | 6.50  |              |       |                     | 171          | 26    | 6.55                   |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>664</b>   |       |   |              |       |                     | <b>2986</b>  |       |                        | <b>2419</b>  |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Production Engineering                            |  |  | 21           |       |   |              |       |                     | 305          |       |                        | 54           |       |             |
| Quality Assurance                                 |  |  | 1            |       |   |              |       |                     | 7            |       |                        | 5            |       |             |
| Acceptance Testing                                |  |  | 8            |       |   |              |       |                     | 34           |       |                        |              |       |             |
| Interim Transportation                            |  |  | 3            |       |   |              |       |                     | 21           |       |                        | 1            |       |             |
| Industrial Stock Support                          |  |  | 32           |       |   |              |       |                     | 106          |       |                        | 47           |       |             |
| CAWCF Gain/Loss Surcharge                         |  |  | 121          |       |   |              |       |                     |              |       |                        |              |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>186</b>   |       |   |              |       |                     | <b>473</b>   |       |                        | <b>107</b>   |       |             |
| <b>TOTAL</b>                                      |  |  | <b>850</b>   |       | <b>0.57</b>   |              |       |                     | <b>3459</b>  |       | <b>0.53</b>            | <b>2526</b>  |       | <b>0.40</b> |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |  |                        |              |                 |                  |                  | Date:          |
|--|---|--------------------------|-----------------|--|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |  |                        |              |                 |                  |                  | February 1998  |
| Weapon System Type:  |   |                          |                 | P-1 Line Item Nomenclature:<br>CTG 5.56MM TRACER M856 F/M16A2 (E04602) |                        |              |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Load, Assemble and Pack<br>FY 96   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Feb-96   | Oct-96                 | 1491         | 0.41            |                  |                  |                |
| FY 98  | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-98   | Oct-98                 | 6509         | 0.43            | Yes              |                  | Oct-97         |
| FY 99  | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98   | Oct-99                 | 6287         | 0.38            | Yes              |                  | Oct-98         |
| Box Metal M2A1<br>FY 96  | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Jun-96   | Oct-96                 | 2            | 5.62            |                  |                  |                |
| FY 98  | TBS   | C/FP                     | IOC             | Mar-98   | Aug-98                 | 8            | 5.74            | Yes              |                  | Oct-97         |
| FY 99  | TBS   | C/FP                     | IOC             | Jan-99   | Jul-99                 | 8            | 5.57            | Yes              |                  | Oct-98         |
| Propellant WC844T (LB)<br>FY 96  | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Apr-96   | Sep-96                 | 6            | 6.50            |                  |                  |                |
| FY 98  | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98   | Sep-98                 | 26           | 6.55            | Yes              |                  | Oct-97         |
| FY 99  | Plant Procured                                | N/A                      | N/A             | N/A  | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |
| REMARKS:<br>TBS - To Be Selected   |   |                          |                 |  |                        |              |                 |                  |                  |                |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 5.56mm RIFLE LAUNCHER, NON-LETHAL, XM95 (E91100)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         | 90      | 135     | 250     | 265     |         |             | 740        |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 3.3     | 4.3     | 6.5     | 6.7     | 0.0     | 0.0         | 20.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 3.3     | 4.3     | 6.5     | 6.7     | 0.0     | 0.0         | 20.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 0.0     | 3.3     | 4.3     | 6.5     | 6.7     | 0.0     | 0.0         | 20.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 The 5.56MM Non-Lethal round is a muzzle-launched ordnance, propelled by the use of an M195 grenade impulse cartridge. It is compatible with both the M16A2 and M4 Carbine. The item consists of a muzzle attaching launch tube and a packaged stack of rubber balls (XM95) for its payload. The launched payload is intended to be non-lethal, low hazard and non-shrapnel producing, which upon impact, generates a temporary trauma to the body with the intent to confuse, disorient and/or momentarily distract/deter potential threat personnel. The Area Fire XM95 is an inert item, cylindrical in shape, with an overall length of 7 inches and a diameter of 2 inches. The payload is 15 rubber coated steel balls, each being approximately 0.7 (~11/16) inches in diameter. Propulsive energy is provided by using an M195 Impulse Cartridge. Ignition of the M195 Impulse Cartridge generates the gas energy to propel and disperse the rubber coated balls to a group target. The XM95 is a single shot disposable item. The item has not been transitioned to the SMCA and will be procured at actual cost beginning in FY 99.

**JUSTIFICATION:**  
 The FY 99 procurement will provide friendly forces with the capability to enforce a standoff distance from a crowd of belligerents at a range of 30-80 meters without using deadly force. There are currently no non-lethal munitions for the M16A2 and M4 weapon systems.

**TYPE CLASSIFICATION DATE:**  
 2nd Quarter 1998



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG 5.56mm RIFLE LAUNCHER, NON-<br>LETHAL, XM95 (E91100) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |        |              |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|--------|--------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |        |              |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty    | UnitCost     |
|   |  |  | \$000        | Each | \$  | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each   | \$           |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |        |              |
| XM95 Non-Lethal Munition                          |  |  |              |      |   |              |      |                     |              |      |                        | 2240         | 90000  | 24.89        |
| M195 Grenade Cartridges                           |  |  |              |      |   |              |      |                     |              |      |                        | 150          | 100000 | 1.50         |
| PA108 Containers                                  |  |  |              |      |   |              |      |                     |              |      |                        | 30           | 3000   | 10.00        |
| Case, Small Arms                                  |  |  |              |      |   |              |      |                     |              |      |                        | 25           | 3600   | 6.94         |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |   |              |      |                     |              |      |                        | <b>2445</b>  |        |              |
| <b>Production Support Costs</b>                   |  |  |              |      |   |              |      |                     |              |      |                        |              |        |              |
| Production Engineering                            |  |  |              |      |   |              |      |                     |              |      |                        | 300          |        |              |
| Quality Assurance                                 |  |  |              |      |   |              |      |                     |              |      |                        | 100          |        |              |
| Acceptance Testing                                |  |  |              |      |   |              |      |                     |              |      |                        | 100          |        |              |
| Interim Transportation                            |  |  |              |      |   |              |      |                     |              |      |                        | 30           |        |              |
| Repackaging Cost                                  |  |  |              |      |   |              |      |                     |              |      |                        | 115          |        |              |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |   |              |      |                     |              |      |                        | <b>645</b>   |        |              |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |        |              |
| Initial Production Test                           |  |  |              |      |   |              |      |                     |              |      |                        | 150          |        |              |
| M195 Startup Cost                                 |  |  |              |      |   |              |      |                     |              |      |                        | 20           |        |              |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |      |   |              |      |                     |              |      |                        | <b>170</b>   |        |              |
| <b>TOTAL</b>                                      |  |  |              |      |   |              |      |                     |              |      |                        | <b>3260</b>  |        | <b>33.27</b> |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 5.56mm RIFLE LAUNCHER, NON-LETHAL, XM95 (E91100)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| XM95 Non-Lethal Munition<br>FY 99  | Alliant Techsystems, MN | FFP                      | ARDEC           | Nov-98     | Jul-99                 | 90000    | 24.89        |                  |                  |                |
| M195 Grenade Cartridges<br>FY 99   | Lake City AAP, MO       | CPFF                     | IOC             | Jan-99     | Jun-99                 | 100000   | 1.50         |                  |                  |                |
| PA108 Containers<br>FY 99          | Various                 | C/FP                     | IOC             | Mar-99     | Jun-99                 | 3000     | 10.00        |                  |                  |                |
| Case, Small Arms<br>FY 99          | Various                 | FFP                      | IOC             | Mar-99     | Jun-99                 | 3600     | 6.94         |                  |                  |                |

REMARKS:



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG ARTY 75MM BLANK M337A1 (E15200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 675         |         | 39      |         | 70      | 34      | 34      | 32      | 32      |         |             | 916        |
| Gross Cost       | 12.3        | 0.0     | 1.5     | 0.0     | 2.9     | 1.6     | 1.6     | 1.5     | 1.5     | 0.0     | 0.0         | 22.9       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 12.3        | 0.0     | 1.5     | 0.0     | 2.9     | 1.6     | 1.6     | 1.5     | 1.5     | 0.0     | 0.0         | 22.9       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 12.3        | 0.0     | 1.5     | 0.0     | 2.9     | 1.6     | 1.6     | 1.5     | 1.5     | 0.0     | 0.0         | 22.9       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 75mm blank cartridge is used on the Pack 75 howitzer for ceremony, parade, and training purposes. The cartridge consists of a brass aluminum cartridge case containing loosely packed black powder and a press-fitted percussion primer. A fiber wad is inserted over the black powder and a polystyrene closing cap is cemented in place with a polyster resin adhesive. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports Presidential and VIP salutation, simulated firing, and annual peacetime training.

**TYPE CLASSIFICATION DATE:**

1975

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG ARTY 75MM BLANK M337A1 (E15200) |              |      | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |              |
|---|--|--|--------------|-------|--|--------------|------|---------------------|--------------|-------|------------------------|--------------|-------|--------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |              |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost     |
|   |  |  | \$000        | Each  | \$   | \$000        | Each | \$                  | \$000        | Each  | \$                     | \$000        | Each  | \$           |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |      |                     |              |       |                        |              |       |              |
| Load, Assemble and Pack                           |  |  | 886          | 39487 | 22.45  |              |      |                     | 2135         | 70000 | 30.49                  | 1454         | 34000 | 42.76        |
| *Black Powder, Class 1 (LB)                       |  |  | 149          | 55282 | 2.70   |              |      |                     | 265          | 98000 | 2.70                   |              |       |              |
| Primer Perc M1B1A2                                |  |  | 204          | 40277 | 5.07   |              |      |                     | 381          | 71400 | 5.33                   |              |       |              |
| *Primer Perc M61                                  |  |  | 23           | 40672 | 0.58   |              |      |                     | 22           | 72100 | 0.31                   |              |       |              |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>1262</b>  |       |  |              |      |                     | <b>2803</b>  |       |                        | <b>1454</b>  |       |              |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |      |                     |              |       |                        |              |       |              |
| Production Engineering                            |  |  | 39           |       |  |              |      |                     | 286          |       |                        | 78           |       |              |
| Quality Assurance                                 |  |  | 2            |       |  |              |      |                     |              |       |                        | 5            |       |              |
| Acceptance Testing                                |  |  | 15           |       |  |              |      |                     |              |       |                        |              |       |              |
| Interim Transportation                            |  |  | 5            |       |  |              |      |                     | 20           |       |                        |              |       |              |
| Industrial Stock Support                          |  |  | 54           |       |  |              |      |                     | 76           |       |                        | 29           |       |              |
| CAWCF Gain/Loss Surcharge                         |  |  | 231          |       |  |              |      |                     |              |       |                        |              |       |              |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>346</b>   |       |  |              |      |                     | <b>382</b>   |       |                        | <b>112</b>   |       |              |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |  |              |      |                     |              |       |                        |              |       |              |
| *Government Furnished Material                    |  |  | -149         |       |  |              |      |                     | -287         |       |                        |              |       |              |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  | <b>-149</b>  |       |  |              |      |                     | <b>-287</b>  |       |                        |              |       |              |
| <b>TOTAL</b>                                      |  |  | <b>1459</b>  |       | <b>36.95</b>   |              |      |                     | <b>2898</b>  |       | <b>41.40</b>           | <b>1566</b>  |       | <b>46.06</b> |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG ARTY 75MM BLANK M337A1 (E15200)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                             | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96     | Mason-Hanger Silas<br>(Iowa AAP)<br>Middleton, IA   | SS/CPFF                  | IOC             | Mar-97     | Sep-97                 | 39487    | 22.45        |                  |                  |                |
| FY 98                                | Mason-Hanger Silas<br>(Iowa AAP)<br>Middleton, IA   | SS/CPFF                  | IOC             | Mar-98     | Jun-99                 | 70000    | 30.49        | YES              |                  | Oct-97         |
| FY 99***                             | Mason-Hanger Silas<br>(Iowa AAP)<br>Middleton, IA   | SS/CPFF                  | IOC             | Mar-00     | Jun-00                 | 34000    | 42.76        | YES              |                  | Oct-98         |
| *Black Powder, Class 1 (LB)<br>FY 96 | Stock Issue   | N/A                      | N/A             | N/A        | N/A                    | 55282    | N/A          | N/A              |                  |                |
| FY 98                                | Stock Issue   | N/A                      | N/A             | N/A        | N/A                    | 98000    | N/A          | N/A              |                  | N/A            |
| FY 99                                | Plant Procured                                      | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |
| Primer Perc M1B1A2<br>FY 96          | Day & Zimmerman<br>(Lone Star AAP)                  | SS/CPFF                  | IOC             | Nov-96     | Mar-97                 | 40277    | 5.07         |                  |                  |                |
| FY 98                                | Day & Zimmerman<br>(Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Mar-98     | Mar-99                 | 71400    | 5.33         | YES              |                  | Oct-97         |
| FY 99                                | Plant Procured                                      | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |

REMARKS: \*Government Furnished Material  
 \*\*\*Complete Round

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

Date: February 1998

| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |                                    | Weapon System Type:      |                 | P-1 Line Item Nomenclature:<br>CTG ARTY 75MM BLANK M337A1 (E15200) |                        |          |              |                  |                  |                |
|--|------------------------------------|--------------------------|-----------------|--|------------------------|----------|--------------|------------------|------------------|----------------|
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location            | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| *Primer Perc M61<br>FY96   | Day & Zimmerman<br>(Lone Star AAP) | SS/CPFF                  | IOC             | Nov-96   | Mar-97                 | 40672    | 0.58         |                  |                  |                |
| FY 98  | Stock Issue                        | N/A                      | N/A             | N/A  | N/A                    | 72100    | N/A          | N/A              |                  | N/A            |
| FY 99  | Plant Procured                     | N/A                      | N/A             | N/A  | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |
| REMARKS: * Government Furnished Material   |                                    |                          |                 |  |                        |          |              |                  |                  |                |







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support  
 P-1 Item Nomenclature: INDUSTRIAL FACILITIES (EP1200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 4610.2      | 60.3    | 44.4    | 49.7    | 24.3    | 47.7    | 61.4    | 63.0    | 68.1    | 73.4    | 0.0         | 5102.5     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 44.4    | 49.7    | 24.3    | 47.7    | 61.4    | 63.0    | 68.1    | 73.4    | 0.0         | 432.0      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 44.4    | 49.7    | 24.3    | 47.7    | 61.4    | 63.0    | 68.1    | 73.4    | 0.0         | 432.0      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

DESCRIPTION: The Industrial Facilities (IF) budget request contains funding for correction of environmental deficiencies at existing facilities, design of future projects to meet peacetime or future requirements, and replacement of obsolete or worn production equipment and correction of infrastructure.

|                    | FY 96   | FY 97   | FY 98   | FY 99   |
|--------------------|---------|---------|---------|---------|
| Environmental      | \$ 9.3  | \$ 8.1  | \$ 8.1  | \$ 14.1 |
| Production Support | 35.1    | 41.6    | 16.2    | 33.6    |
| TOTAL              | \$ 44.4 | \$ 49.7 | \$ 24.3 | \$ 47.7 |

JUSTIFICATION: Funds are used for the establishment, augmentation, and improvement of production capability for items procured under the ammunition appropriations. Funds also correct environmental problems, which if left unfunded would result in costly fines and penalties against the Army.

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

Date

February 1998

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support

P-1 Item Nomenclature

INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items

Code

Other Related Program Elements

| <u>LOCATION</u>                        | <u>PROJECT TITLE</u>   | <u>PROJECT</u> | <u>FY 1996</u> | <u>FY 1997</u> | <u>FY 1998</u> | <u>FY 1999</u> |
|--|--|----------------|----------------|----------------|----------------|----------------|
| <b><u>PRODUCTION SUPPORT</u></b>       |  |                |                |                |                |                |
| HOLSTON ARMY<br>AMMUNITION PLANT (AAP) | Production Support and Equipment Replacement   | 59X5328        | 2902           |                |                |                |
| IOWA AAP                               | Production Support and Equipment Replacement   | 59X5333        | 2038           | 404            |                | 2240           |
| IOWA AAP                               | Replace Water Main, Line 2   | 5993323        |                |                |                | 807            |
| IOWA AAP                               | Manufacturing Management System (MRP II)   | 5973339        |                | 2205           |                |                |
| LAKE CITY AAP                          | Production Support and Equipment Replacement   | 59X5332        | 2817           |                | 703            | 3687           |
| LAKE CITY AAP                          | Automated Data Management System   | 59X2956        | 3384           | 874            |                |                |
| LAKE CITY AAP                          | Recondition Case Line Number 2   | 5962962        | 1263           |                |                |                |
| LAKE CITY AAP                          | Small Caliber Flexible Production Line   | 5972969        |                | 5695           |                |                |
| LAKE CITY AAP                          | Consolidation of Operations, Building 3  | 5963326        | 901            |                |                |                |
| LAKE CITY AAP                          | Manhurin Loader Upgrade  | 5983330        |                |                | 2246           |                |
| LAKE CITY AAP                          | Caliber .50 Upgrade  | 5983331        |                |                | 1722           |                |
| LAKE CITY AAP                          | Stores, Tool/Gage and Machine Shop<br>Consolidation  | 5993335        |                |                |                | 1860           |
| LAKE CITY AAP                          | 7.62mm Upgrade/Consolidation   | 5973342        |                | 1878           |                |                |
| LONE STAR AAP                          | Production Support and Equipment Replacement   | 59X5316        | 256            | 138            |                | 1795           |
| LONE STAR AAP                          | 105mm XM915/916 Dual Purpose Improved<br>Conventional Munitions (DPICM) Load, Assemble<br>and Pack (LAP) | 5960145        | 1856           |                |                |                |
| LONE STAR AAP                          | Replace Area 1 Heating System  | 5962957        | 987            |                |                |                |
| LONE STAR AAP                          | Manufacturing Management System (MRP II)   | 5973336        |                | 3298           |                |                |
| MILAN AAP                              | Production Support and Equipment Replacement   | 59X5317        | 1748           | 1676           |                | 2221           |
| MILAN AAP                              | Construct Fire Station   | 5962700        | 2626           |                |                |                |
| MILAN AAP                              | Facilitization for 120mm High Explosive (HE)<br>Mortar   | 59X3320        | 37             | 4121           |                |                |

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

Date

February 1998

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support

P-1 Item Nomenclature

INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items

Code

Other Related Program Elements

| <u>LOCATION</u>                  | <u>PROJECT TITLE</u>                                | <u>PROJECT</u> | <u>FY 1996</u> | <u>FY 1997</u> | <u>FY 1998</u> | <u>FY 1999</u> |
|----------------------------------|---|----------------|----------------|----------------|----------------|----------------|
| <b><u>PRODUCTION SUPPORT</u></b> |   |                |                |                |                |                |
| PINE BLUFF<br>ARSENAL            | 120mm Mortar Body Assembly Facility                 | 5960177        | 1192           |                |                |                |
| RADFORD AAP                      | Production Support and Equipment Replacement        | 59X5326        | 1849           | 2375           | 813            | 3470           |
| RADFORD AAP                      | Manufacturing Management System (MRP II)            | 5972871        |                | 3930           |                |                |
| RADFORD AAP                      | Overhead Electrical Service                         | 59X2783        |                |                | 837            | 476            |
| RADFORD AAP                      | Replace Three Acid Tanks                            | 5962961        | 1908           |                |                |                |
| RADFORD AAP                      | Replace Wood Tanks, Building 419                    | 5972965        |                | 1941           |                |                |
| RADFORD AAP                      | Replace Raw Water Supply Line, Buildings<br>408-409 | 5993322        |                |                |                | 2084           |
| RADFORD AAP                      | Replace Natural Gas Lines                           | 5993314        |                |                |                | 4782           |
| RADFORD AAP                      | Steam Plant Claim                                   | 5973565        |                | 309            |                |                |
| RADFORD AAP                      | Hydra 70 X-Ray Equipment                            | 5961000        | 629            |                |                |                |
| RIVERBANK AAP                    | Large Caliber Deep Drawn Cartridge Cases            | 5983311        |                |                | 3000           |                |
| SCRANTON AAP                     | Production Support and Equipment Replacement        | 59X5342        | 581            | 1735           |                | 2195           |
| SCRANTON AAP                     | Computer Integrated Manufacturing Support           | 5973329        |                | 1500           |                |                |
| HARRY DIAMOND<br>LABORATORY      | Production Support and Equipment Replacement        | 5961924        | 125            |                |                |                |
| PROVING GROUND                   | Production Support and Equipment Replacement        | 59X5060        | 1333           | 1425           | 1400           | 1200           |
| VARIOUS AAPs                     | Federal Energy Management Program (FEMP)            | 59X5201        |                | 1900           |                |                |
| VARIOUS AAPs                     | Engineering Design                                  | 59X3046        | 6609           | 6179           | 5493           | 674            |
|                                  | Sub Total - Production                              |                | 35,041         | 41,583         | 16,214         | 33,557         |

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

Date

February 1998

Appropriation / Budget Activity/Serial No.

PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support

P-1 Item Nomenclature

INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items

Code

Other Related Program Elements

| <u>LOCATION</u>             | <u>PROJECT TITLE</u>   | <u>PROJECT</u> | <u>FY 1996</u> | <u>FY 1997</u> | <u>FY 1998</u> | <u>FY 1999</u> |
|-----------------------------|--|----------------|----------------|----------------|----------------|----------------|
| <b><u>ENVIRONMENTAL</u></b> |  |                |                |                |                |                |
| HOLSTON AAP                 | Production Support and Equipment Replacement   | 59X5328        |                |                | 222            |                |
| HOLSTON AAP                 | Correct Inflow/Infiltration in Sanitary Sewer  | 5962979        | 2901           |                |                |                |
| HOLSTON AAP                 | Industrial Wastewater Treatment  | 5962856        | 3764           |                |                |                |
| HOLSTON AAP                 | Plant-Wide Diking  | 5982923        |                |                | 3457           |                |
| HOLSTON AAP                 | Replace Industrial Wastewater Line   | 5972938        |                | 3157           |                |                |
| HOLSTON AAP                 | Acid A Industrial Wastewater Equalization/<br>Spill Ponds to Concrete Tanks            | 5992994        |                |                |                | 1846           |
| IOWA AAP                    | Production Support and Equipment Replacement   | 59X5333        | 105            | 853            | 1106           | 1459           |
| IOWA AAP                    | Hazardous Waste/Material Process Facility  | 5992952        |                |                |                | 2016           |
| IOWA AAP                    | Install Detonation Chamber/Molton Salt to<br>Replace Open Burn/Open Detonation (OB/OD) | 5993357        |                |                |                | 1792           |
| LAKE CITY AAP               | Equipment Retrofit for Water Based Mouth<br>Waterproofing                              | 5993355        |                |                |                | 3994           |
| LAKE CITY AAP               | Production Support and Equipment Replacement   | 59X5332        |                | 947            | 540            |                |
| LONE STAR AAP               | Production Support and Equipment Replacement   | 59X5316        | 161            |                | 879            |                |
| MILAN AAP                   | Production Support and Equipment Replacement   | 59X5317        | 716            | 411            | 1277           | 1116           |
| MILAN AAP                   | Upgrade Composition C-4 Facility   | 5972984        |                | 329            |                |                |
| RADFORD AAP                 | Production Support and Equipment Replacement   | 59X5326        |                | 728            | 478            |                |
| RADFORD AAP                 | Close Bioplant Equalization Basin  | 5962941        | 1444           |                |                |                |
| RADFORD AAP                 | Install Diffuser   | 5973312        |                | 1144           |                |                |
| RADFORD AAP                 | Correct Defects in Equalization Tanks  | 5993313        |                |                |                | 1880           |
| RADFORD AAP                 | Correct Deficiencies in C-Line Duct Work   | 5973347        |                | 325            |                |                |

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

Date  
February 1998

Appropriation / Budget Activity/Serial No.      P-1 Item Nomenclature  
 PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support      INDUSTRIAL FACILITIES (EP1200)

Program Elements for Code B Items      Code      Other Related Program Elements

| <u>LOCATION</u>                    | <u>PROJECT TITLE</u>                         | <u>PROJECT</u> | <u>FY 1996</u> | <u>FY 1997</u> | <u>FY1998</u> | <u>FY 1999</u> |
|------------------------------------|--|----------------|----------------|----------------|---------------|----------------|
| <u>ENVIRONMENTAL</u>               |  |                |                |                |               |                |
| SCRANTON AAP                       | Production Support and Equipment Replacement | 59X5342        |                |                | 126           |                |
| VARIOUS AAPS                       | Correct Environmental Deficiencies           | 59X2910        | 224            | 25             |               |                |
|                                    | <b>SUBTOTAL</b>                              |                | <b>9,315</b>   | <b>8,149</b>   | <b>8,085</b>  | <b>14,103</b>  |
| <b>TOTAL INDUSTRIAL FACILITIES</b> |  |                | <b>44,356</b>  | <b>49,732</b>  | <b>24,299</b> | <b>47,660</b>  |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |       |   |  |  |  | 1. DATE<br>February 1998 |
|---|-------|---|--|--|--|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Safety - Overhead Electrical Service, Phase II   |       |   | 3. END ITEM SUPPORTED MODEL<br>Propellants and Explosives (Nitroglycerin and Nitrocellulose) |  |  |                          |
| 4. PROJECT NUMBER<br>5992783  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |  | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |  |                          |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98  | FY 99  | H. FACILITY  |                          |
| <b>A. CONSTRUCTION COST</b>   |       |   | 770  | 439  | 1. NAME <u>Radford Army Ammunition Plant</u>             |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |  |  | 2. LOCATION <u>Radford, Virginia</u>                     |                          |
| 1.  |       |   | 0  | 0  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>                   |                          |
| 2.  |       |   |  |  | I. RELATED PROJECTS                                      |                          |
| 3.  |       |   |  |  |  |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  |       |   | 0  | 0  |  |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   |       |   | 0  | 0  | Project Number   | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   |       |   | 17   | 9  | FY & Appn  | Value (\$ mil)           |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   |       |   | 46   | 26   | Facing   | Start Date               |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   |       |   | 4  | 2  | Date   | Compl Date               |
| <b>TOTAL FACILITY PROJECT COST</b>  |       |   | 837  | 476  | J. PRINCIPAL MILESTONES                                  |                          |
| <b>G. OTHER COSTS</b>   |       |   |  |  | MONTH & YEAR   |                          |
| 1. FACILITY PROVE-OUT COST  |       |   | 0  | 0  | 1. CONCEPT DESIGN COMPLETE <u>Aug-96</u>                 |                          |
| 2. MILITARY CONSTRUCTION APPN.  |       |   | 0  | 0  | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>                   |                          |
|   |       |   |  |  | 3. INITIAL/FINAL PROJECT AWARD <u>Mar-99/Mar-99</u>      |                          |
|   |       |   |  |  | 4. CONSTRUCTION COMPLETE <u>Nov-00</u>                   |                          |
|   |       |   |  |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Not Applicable</u> |                          |
|   |       |   |  |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>                |                          |
|   |       |   |  |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>              |                          |
| <b>NARRATIVE EXPLANATION</b>  |       |   |  |  |  |                          |
| This is a safety project that will bring the exterior electrical power and signal distribution systems into compliance with Army safety criteria in the Nitroglycerine-1 (NG-1), Premix Number 1, 1st Rolled Powder Area, and Green Lines explosive facility areas. |       |   |  |  |  |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |              |   |   |  |  | 1. DATE<br>February 1998 |
|---|--------------|---|---|--|--|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Environmental-Hazardous Waste/Material Process Facility  |              |   | 3. END ITEM SUPPORTED MODEL<br>Medium and Large Caliber projectiles and 40 pound cratering charge |  |  |                          |
| 4. PROJECT NUMBER<br>5992952  |              | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |  |                          |
| <b>ELEMENT OF COST</b>  | <b>FY 96</b> | <b>FY 97</b>  | <b>FY 98</b>  | <b>FY 99</b>   | <b>H. FACILITY</b>                                       |                          |
| <b>A. CONSTRUCTION COST</b>   |              |   |   | 1,863  | 1. NAME <u>Iowa Army Ammunition Plant</u>                |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |              |   |   | 0  | 2. LOCATION <u>Middletown, Iowa</u>                      |                          |
| 1.  |              |   |   |  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>                   |                          |
| 2.  |              |   |   |  |  |                          |
| 3.  |              |   |   |  |  |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  |              |   |   | 0  | <b>I. RELATED PROJECTS</b>                               |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   |              |   |   | 0  |  |                          |
| <b>D. CONTRACTOR SUPPORT COST</b>   |              |   |   | 41   |  |                          |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   |              |   |   | 112  |  |                          |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   |              |   |   |  |  |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  |              |   |   | 2,016  |  |                          |
| <b>G. OTHER COSTS</b>   |              |   |   |  | <b>J. PRINCIPAL MILESTONES</b>                           |                          |
| 1. FACILITY PROVE-OUT COST  |              |   |   | 0  | MONTH & YEAR   |                          |
| 2. MILITARY CONSTRUCTION APPN.  |              |   |   | 0  | 1. CONCEPT DESIGN COMPLETE <u>Jun-96</u>                 |                          |
|   |              |   |   |  | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>                   |                          |
|   |              |   |   |  | 3. INITIAL/FINAL PROJECT AWARD <u>Feb-99/Feb-99</u>      |                          |
|   |              |   |   |  | 4. CONSTRUCTION COMPLETE <u>Jul-00</u>                   |                          |
|   |              |   |   |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Not Applicable</u> |                          |
|   |              |   |   |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>                |                          |
|   |              |   |   |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>              |                          |
| <b>NARRATIVE EXPLANATION</b>  |              |   |   |  |  |                          |
| This project will provide a facility to be used to collect and contain hazardous materials (HM) and hazardous wastes (HW) until they can be properly processed and classified. HM and HW is produced as a result of all aspects of production. Currently, the HM/HW operations are scattered throughout the plant and include such items as spent solvents, explosive contaminated carbon, diatomaceous earth, ebonizing solutions, laboratory chemicals, spent oils, and lead sludge wastes. This effort will combine these items into one central point of control. |              |   |   |  |  |                          |



| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |                            |   |  |  |   | 1. DATE<br>February 1998 |                |
|---|----------------------------|---|--|--|---|--------------------------|----------------|
| 2. PROJECT TITLE/TYPE<br>Environmental-Acid A Industrial Wastewater Equalization/Spill Ponds to Concrete Tanks  |                            |   | 3. END ITEM SUPPORTED MODEL<br>Research Department Explosive (RDX) High Melt Explosive (HMX) |  |   |                          |                |
| 4. PROJECT NUMBER<br>5992994  |                            | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |  | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |                          |                |
| ELEMENT OF COST   | FY 96                      | FY 97   | FY 98  | FY 99  | H. FACILITY   |                          |                |
| <b>A. CONSTRUCTION COST</b><br><br><b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)<br><br>1.<br><br>2.<br><br>3.<br><br><b>SUBTOTAL EQUIPMENT COST</b><br><br><b>C. EQUIPMENT INSTALLATION COST</b><br><b>D. CONTRACTOR SUPPORT COST</b><br><b>E. CORPS OF ENGINEERS SUPPORT COST</b><br><b>F. OTHER IN-HOUSE SUPPORT COST</b><br><br><b>TOTAL FACILITY PROJECT COST</b><br><br><b>G. OTHER COSTS</b><br>1. FACILITY PROVE-OUT COST<br>2. MILITARY CONSTRUCTION APPN. |                            |   |  | 1,697  | 1. NAME <u>Holston Army Ammunition Plant</u><br>2. LOCATION <u>Kingsport, Tennessee</u><br>3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u> |                          |                |
|   | <b>I. RELATED PROJECTS</b> |   |  |  |   |                          |                |
|   |                            |   |  |  | 0   | Project Number           | Title          |
|   |                            |   |  |  |   | FY & Appn                | Value (\$ mil) |
|   |                            |   |  |  |   | Facing                   | Start Date     |
|   |                            |   |  |  |   | Compl Date               |                |
|   |                            |   |  |  |   | Not Applicable           |                |
|   |                            |   |  |  | 0   |                          |                |
|   |                            |   |  |  | 0   |                          |                |
|   |                            |   |  |  | 39  |                          |                |
|   |                            |   |  | 102  |   |                          |                |
|   |                            |   |  | 8  |   |                          |                |
|   |                            |   |  | 1,846  | <b>J. PRINCIPAL MILESTONES</b>  |                          |                |
|   |                            |   |  |  |   | <b>MONTH &amp; YEAR</b>  |                |
|   |                            |   |  |  | 1. CONCEPT DESIGN COMPLETE  | <u>Aug-95</u>            |                |
|   |                            |   |  |  | 2. FINAL DESIGN COMPLETE  | <u>Nov-97</u>            |                |
|   |                            |   |  |  | 3. INITIAL/FINAL PROJECT AWARD  | <u>Jan-99/Jan-99</u>     |                |
|   |                            |   |  |  | 4. CONSTRUCTION COMPLETE  | <u>Jul-00</u>            |                |
|   |                            |   |  |  | 5. EQUIPMENT INSTALLATION COMPLETE  | <u>Not Applicable</u>    |                |
|   |                            |   |  |  | 6. PROVE OUT BEGINS   | <u>Not Applicable</u>    |                |
|   |                            |   |  |  | 7. PROVE OUT COMPLETE   | <u>Not Applicable</u>    |                |
| <b>NARRATIVE EXPLANATION</b>  |                            |   |  |  |   |                          |                |
| This project will replace two clay lined ponds with concrete tanks. Clay lining is not adequate to prevent groundwater contamination by the industrial wastewater in the ponds. If the ponds contaminate groundwater, the groundwater could contaminate the south fork of the Holston River which flows about 50 feet from the ponds.   |                            |   |  |  |   |                          |                |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>  |       |   |       |       |  | 1. DATE                                 |           |                |        |            |            |
|--|-------|---|-------|-------|--|---|-----------|----------------|--------|------------|------------|
| 2. PROJECT TITLE/TYPE<br>Preparation of Equipment and Construction Design  |       |   |       |       |  | 3. END ITEM SUPPORTED MODEL<br>Multiple |           |                |        |            |            |
| 4. PROJECT NUMBER<br>5993046   |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |       |       | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |           |                |        |            |            |
| ELEMENT OF COST  | FY 96 | FY 97   | FY 98 | FY 99 | H. FACILITY  |   |           |                |        |            |            |
| A. CONSTRUCTION COST   | 0     | 0   | 0     | 0     | 1. NAME _____ Multiple                                     |   |           |                |        |            |            |
|  |       |   |       |       | 2. LOCATION _____ Multiple                                 |   |           |                |        |            |            |
| B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   | 0     | 0   | 0     | 0     | 3. TYPE (GOGO, GOCO, COCO) _____ Multiple                  |   |           |                |        |            |            |
|  |       |   |       |       | I. RELATED PROJECTS  |   |           |                |        |            |            |
| 1.   | 0     | 0   | 0     | 0     | Project Number   | Title                                   | FY & Appn | Value (\$ mil) | Facing | Start Date | Compl Date |
| 2.   |       |   |       |       | Not Applicable   |   |           |                |        |            |            |
| 3.   |       |   |       |       |  |   |           |                |        |            |            |
| SUBTOTAL EQUIPMENT COST  | 0     | 0   | 0     | 0     |  |   |           |                |        |            |            |
| C. EQUIPMENT INSTALLATION COST   | 0     | 0   | 0     | 0     |  |   |           |                |        |            |            |
| D. CONTRACTOR SUPPORT COST   | 0     | 0   | 0     | 0     |  |   |           |                |        |            |            |
| E. CORPS OF ENGINEERS SUPPORT COST   | 2,972 | 2,590   | 1,995 | 2,969 |  |   |           |                |        |            |            |
| F. OTHER IN-HOUSE SUPPORT COST   | 3,637 | 3,589   | 3,498 | 3,771 |  |   |           |                |        |            |            |
| TOTAL FACILITY PROJECT COST  | 6,609 | 6,179   | 5,493 | 6,740 |  |   |           |                |        |            |            |
| G. OTHER COSTS   |       |   |       |       |  |   |           |                |        |            |            |
| 1. FACILITY PROVE-OUT COST   | 0     | 0   | 0     | 0     | J. PRINCIPAL MILESTONES                                    |   |           | MONTH & YEAR   |        |            |            |
| 2. MILITARY CONSTRUCTION APPN.   | 0     | 0   | 0     | 0     | 1. CONCEPT DESIGN COMPLETE                                 |   |           | Not Applicable |        |            |            |
|  |       |   |       |       | 2. FINAL DESIGN COMPLETE                                   |   |           | Not Applicable |        |            |            |
|  |       |   |       |       | 3. INITIAL/FINAL PROJECT AWARD                             |   |           | Not Applicable |        |            |            |
|  |       |   |       |       | 4. CONSTRUCTION COMPLETE                                   |   |           | Not Applicable |        |            |            |
|  |       |   |       |       | 5. EQUIPMENT INSTALLATION COMPLETE                         |   |           | Not Applicable |        |            |            |
|  |       |   |       |       | 6. PROVE OUT BEGINS  |   |           | Not Applicable |        |            |            |
|  |       |   |       |       | 7. PROVE OUT COMPLETE                                      |   |           | Not Applicable |        |            |            |
| NARRATIVE EXPLANATION  |       |   |       |       |  |   |           |                |        |            |            |
| This project will provide the annual funding increment for the Industrial Facilities (IF) Program. These funds are used for the initiation and/or continuation of construction design criteria, equipment and construction concept and final design, process design specifications, procurement packages, design reviews and design related analyses, preparation and incorporation of engineering change proposals, preparation of environmental evaluation to determine if categorical exclusion to the requirement for an environmental assessment (EA) or Environmental Impact Statement (EIS) is appropriate. Other design related efforts allowable under existing regulations deemed necessary to assure efficient and timely execution of facility projects. |       |   |       |       |  |   |           |                |        |            |            |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |              |   |  |  |  | 1. DATE<br>February 1998 |
|---|--------------|---|--|--|--|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Environmental-Correct Defects in Equalization Tanks  |              |   | 3. END ITEM SUPPORTED MODEL<br>Propellants and Explosives (Nitroglycerin and Nitrocellulose) |  |  |                          |
| 4. PROJECT NUMBER<br>5993313  |              | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |  | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |  |                          |
| <b>ELEMENT OF COST</b>  | <b>FY 96</b> | <b>FY 97</b>  | <b>FY 98</b>   | <b>FY 99</b>   | <b>H. FACILITY</b>                           |                          |
| <b>A. CONSTRUCTION COST</b>   |              |   |  | 1,629  | 1. NAME <u>Radford Army Ammunition Plant</u> |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |              |   |  |  | 2. LOCATION <u>Radford, Virginia</u>         |                          |
| 1.  |              |   |  | 0  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>       |                          |
| 2.  |              |   |  |  |  |                          |
| 3.  |              |   |  |  |  |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  |              |   |  | 0  | <b>I. RELATED PROJECTS</b>                   |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   |              |   |  | 0  | Project Number                               | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   |              |   |  | 144  |  |                          |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   |              |   |  | 98   |  |                          |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   |              |   |  | 9  |  |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  |              |   |  | 1,880  |  |                          |
| <b>G. OTHER COSTS</b>   |              |   |  |  |  |                          |
| 1. FACILITY PROVE-OUT COST  |              |   |  | 0  | <b>J. PRINCIPAL MILESTONES</b>               |                          |
| 2. MILITARY CONSTRUCTION APPN.  |              |   |  | 0  |  | <b>MONTH &amp; YEAR</b>  |
|   |              |   |  |  | 1. CONCEPT DESIGN COMPLETE                   | <u>Jul-96</u>            |
|   |              |   |  |  | 2. FINAL DESIGN COMPLETE                     | <u>Oct-97</u>            |
|   |              |   |  |  | 3. INITIAL/FINAL PROJECT AWARD               | <u>Apr-99/Apr-99</u>     |
|   |              |   |  |  | 4. CONSTRUCTION COMPLETE                     | <u>Apr-00</u>            |
|   |              |   |  |  | 5. EQUIPMENT INSTALLATION COMPLETE           | <u>Not Applicable</u>    |
|   |              |   |  |  | 6. PROVE OUT BEGINS                          | <u>Not Applicable</u>    |
|   |              |   |  |  | 7. PROVE OUT COMPLETE                        | <u>Not Applicable</u>    |
| <b>NARRATIVE EXPLANATION</b>  |              |   |  |  |  |                          |
| <p>This project is an Environmental Class 1H "Must Fund". This project provides for replacement of the leaking high density polyethylene liner system with a field applied elastomeric liner at the Waste Acid Equalization Basin. Because of leaks in the current liner, the facility cannot be used. Migration of acidic wastewater which contains Nitrocellulose (NC) fines/particles has resulted in the deterioration of concrete tanks and the deposition of NC fines/particles in confined spaces which are inaccessible for cleaning. Alternative methods for the liner were evaluated and this is the most cost effective.</p> |              |   |  |  |  |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |              |   |  |  |  | 1. DATE<br>February 1998 |
|---|--------------|---|--|--|--|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Safety-Replace Natural Gas Line  |              |   | 3. END ITEM SUPPORTED MODEL<br>Propellants and Explosives (Nitroglycerin and Nitrocellulose) |  |  |                          |
| 4. PROJECT NUMBER<br>5993314  |              | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |  | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |  |                          |
| <b>ELEMENT OF COST</b>  | <b>FY 96</b> | <b>FY 97</b>  | <b>FY 98</b>   | <b>FY 99</b>   | <b>H. FACILITY</b>                           |                          |
| <b>A. CONSTRUCTION COST</b>   |              |   |  | 4,399  | 1. NAME <u>Radford Army Ammunition Plant</u> |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |              |   |  |  | 2. LOCATION <u>Radford, Virginia</u>         |                          |
| 1.  |              |   |  | 0  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>       |                          |
| 2.  |              |   |  |  |  |                          |
| 3.  |              |   |  |  |  |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  |              |   |  | 0  | <b>I. RELATED PROJECTS</b>                   |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   |              |   |  | 0  | Project Number                               | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   |              |   |  | 98   |  |                          |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   |              |   |  | 263  |  |                          |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   |              |   |  | 22   |  |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  |              |   |  | 4,782  | FY & Appn                                    | Value (\$ mil)           |
| <b>G. OTHER COSTS</b>   |              |   |  |  | Facing                                       | Start Date               |
| 1. FACILITY PROVE-OUT COST  |              |   |  | 0  |  | Compl Date               |
| 2. MILITARY CONSTRUCTION APPN.  |              |   |  | 0  |  |                          |
|   |              |   |  |  | <b>J. PRINCIPAL MILESTONES</b>               |                          |
|   |              |   |  |  |  | <b>MONTH &amp; YEAR</b>  |
|   |              |   |  |  | 1. CONCEPT DESIGN COMPLETE                   | <u>Jun-97</u>            |
|   |              |   |  |  | 2. FINAL DESIGN COMPLETE                     | <u>Nov-97</u>            |
|   |              |   |  |  | 3. INITIAL/FINAL PROJECT AWARD               | <u>Feb-99/Apr-99</u>     |
|   |              |   |  |  | 4. CONSTRUCTION COMPLETE                     | <u>Dec-00</u>            |
|   |              |   |  |  | 5. EQUIPMENT INSTALLATION COMPLETE           | <u>Not Applicable</u>    |
|   |              |   |  |  | 6. PROVE OUT BEGINS                          | <u>Not Applicable</u>    |
|   |              |   |  |  | 7. PROVE OUT COMPLETE                        | <u>Not Applicable</u>    |
| <b>NARRATIVE EXPLANATION</b>  |              |   |  |  |  |                          |
| This project will correct a recognized safety hazard to plant personnel and operations. The possibility of a gas leakage from the piping in the manufacturing area poses a particularly large potential for hazard. This project will assure reliable natural gas service to the plant production and waste propellant incineration operations and correct safety deficiencies. This project provides for replacement of a 25-year-old system (an estimated 21,000 linear feet of natural gas line piping). It further provides for the replacement of retrofit cathodic protection on an additional 14,500 linear feet of natural gas line piping. |              |   |  |  |  |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>  |              |   |              |  |  | 1. DATE<br>February 1998                           |
|--|--------------|---|--------------|--|--|--|
| 2. PROJECT TITLE/TYPE<br>Infrastructure-Replace Raw Water Supply Line, Building 408 to Building 409  |              |   |              | 3. END ITEM SUPPORTED MODEL<br>Propellants and Explosives (Nitroglycerin and Nitrocellulose) |  |  |
| 4. PROJECT NUMBER<br>5993322   |              | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |              | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable                                   |  |  |
| <b>ELEMENT OF COST</b>   | <b>FY 96</b> | <b>FY 97</b>  | <b>FY 98</b> | <b>FY 99</b>   | <b>H. FACILITY</b>                                       |  |
| <b>A. CONSTRUCTION COST</b>  |              |   |              | 1,916  | 1. NAME <u>Radford Army Ammunition Plant</u>             |  |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)  |              |   |              |  | 2. LOCATION <u>Radford, Virginia</u>                     |  |
| 1.   |              |   |              | 0  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>                   |  |
| 2.   |              |   |              |  |  |  |
| 3.   |              |   |              |  |  |  |
| <b>SUBTOTAL EQUIPMENT COST</b>   |              |   |              | 0  | <b>I. RELATED PROJECTS</b>                               |  |
| <b>C. EQUIPMENT INSTALLATION COST</b>  |              |   |              | 0  | Project Number   | Title  |
| <b>D. CONTRACTOR SUPPORT COST</b>  |              |   |              | 43   | FY & Appn  | Value (\$ mil)                                     |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>  |              |   |              | 115  | Facing   | Start Date   |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>  |              |   |              | 10   | Compl Date   |  |
| <b>TOTAL FACILITY PROJECT COST</b>   |              |   |              | 2,084  | 5326-23-006  | Underground Piping Between Buildings 3002 and 3686 |
| <b>G. OTHER COSTS</b>  |              |   |              |  | 5326-23-005  | Underground Piping Between Buildings 700 and 3019  |
| 1. FACILITY PROVE-OUT COST   |              |   |              | 0  | 5326-13-003  | Replace Distribution Water Lines in Green Area     |
| 2. MILITARY CONSTRUCTION APPN.   |              |   |              | 0  |  |  |
|  |              |   |              |  | <b>J. PRINCIPAL MILESTONES</b>                           |  |
|  |              |   |              |  | <b>MONTH &amp; YEAR</b>                                  |  |
|  |              |   |              |  | 1. CONCEPT DESIGN COMPLETE <u>Jul-96</u>                 |  |
|  |              |   |              |  | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>                   |  |
|  |              |   |              |  | 3. INITIAL/FINAL PROJECT AWARD <u>Mar-99/Mar-99</u>      |  |
|  |              |   |              |  | 4. CONSTRUCTION COMPLETE <u>Mar-00</u>                   |  |
|  |              |   |              |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Not Applicable</u> |  |
|  |              |   |              |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>                |  |
|  |              |   |              |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>              |  |
| <b>NARRATIVE EXPLANATION</b>   |              |   |              |  |  |  |
| This project provides an uninterrupted water supply for plant operations. A failure in the existing line will stop all production in the main plant area. The existing 36-inch raw water line has been in service for over 55 years and requires significant repairs. This effort will replace approximately 4,200 feet of 36-inch raw water line from the River Pump House (Building 408) to the Filter Plant (Building 409). This project will also include the installation of new piping to connect the 36-inch line to the existing 30-inch line. |              |   |              |  |  |  |



| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>  |       |   |   |  |   | 1. DATE<br>February 1998         |
|--|-------|---|---|--|---|----------------------------------|
| 2. PROJECT TITLE/TYPE<br>Stores, Tool/Gage, and Machine Shop Consolidation   |       |   | 3. END ITEM SUPPORTED MODEL<br>Ammunition Items: 7.62mm Cartridges, .50 Caliber (All Types) |  |   |                                  |
| 4. PROJECT NUMBER<br>5993335   |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |                                  |
| ELEMENT OF COST  | FY 96 | FY 97   | FY 98   | FY 99  | H. FACILITY   |                                  |
| <b>A. CONSTRUCTION COST</b>  |       |   |   | 0  | 1. NAME <u>Lake City Army Ammunition Plant</u>      |                                  |
|  |       |   |   |  | 2. LOCATION <u>Independence, Missouri</u>           |                                  |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)  |       |   |   | 1,398  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>              |                                  |
|  |       |   |   |  | <b>I. RELATED PROJECTS</b>                          |                                  |
| 1.   |       |   |   | 1,398  | Project Number                                      | Title                            |
| 2.   |       |   |   |  | FY & Appn   | Value (\$ mil)                   |
| 3.   |       |   |   |  | Facing  | Start Date                       |
|  |       |   |   |  | Compl Date  |                                  |
| <b>SUBTOTAL EQUIPMENT COST</b>   |       |   |   | 1,398  | 3326  | 20mm Upgrade and Consolidation   |
| <b>C. EQUIPMENT INSTALLATION COST</b>  |       |   |   | 349  | 3330  | Manhurin Loader Upgrade          |
| <b>D. CONTRACTOR SUPPORT COST</b>  |       |   |   | 104  | 3331  | Caliber .50 Upgrade              |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>  |       |   |   | 0  | 3342  | 7.62mm Upgrade and Consolidation |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>  |       |   |   | 9  |   |                                  |
| <b>TOTAL FACILITY PROJECT COST</b>   |       |   |   | 1,860  | <b>J. PRINCIPAL MILESTONES</b>                      |                                  |
| <b>G. OTHER COSTS</b>  |       |   |   | 0  | <b>MONTH &amp; YEAR</b>                             |                                  |
| 1. FACILITY PROVE-OUT COST   |       |   |   | 0  | 1. CONCEPT DESIGN COMPLETE <u>Mar-96</u>            |                                  |
| 2. MILITARY CONSTRUCTION APPN.   |       |   |   | 0  | 2. FINAL DESIGN COMPLETE <u>Jan-97</u>              |                                  |
|  |       |   |   |  | 3. INITIAL/FINAL PROJECT AWARD <u>Dec-98/Dec-98</u> |                                  |
|  |       |   |   |  | 4. CONSTRUCTION COMPLETE <u>Not Applicable</u>      |                                  |
|  |       |   |   |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Feb-00</u>    |                                  |
|  |       |   |   |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>           |                                  |
|  |       |   |   |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>         |                                  |
| <b>NARRATIVE EXPLANATION</b>   |       |   |   |  |   |                                  |
| <p>This project will complete the consolidation of major elements of plant operations into one building in an effort to reduce operating costs. This project will provide adequate facilities for the transfer of .50 caliber stores from Building 3 into Building 12B and relocate the tools/gages and machine shop equipment from Building 10 to Building 3. This project involves necessary renovations to Building 12B to accommodate the new stores mission. This renovation also consists of upgrading the electrical, mechanical, and air conditioning systems in Building 12B.</p> |       |   |   |  |   |                                  |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |              |   |   |  |   | 1. DATE<br>February 1998 |
|---|--------------|---|---|--|---|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Equipment Retrofit for Waterbased Mouth Waterproofing  |              |   | 3. END ITEM SUPPORTED MODEL<br>Ammunition Items: 7.62mm Cartridges, .50 Caliber (All Types) |  |   |                          |
| 4. PROJECT NUMBER<br>5993355  |              | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |                          |
| <b>ELEMENT OF COST</b>  | <b>FY 96</b> | <b>FY 97</b>  | <b>FY 98</b>  | <b>FY 99</b>   | <b>H. FACILITY</b>                                  |                          |
| <b>A. CONSTRUCTION COST</b>   |              |   |   | 0  | 1. NAME <u>Lake City Army Ammunition Plant</u>      |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |              |   |   | 1,442  | 2. LOCATION <u>Independence, Missouri</u>           |                          |
| 1.  |              |   |   |  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>              |                          |
| 2.  |              |   |   |  | <b>I. RELATED PROJECTS</b>                          |                          |
| 3.  |              |   |   |  | Project Number                                      | Title                    |
| <b>SUBTOTAL EQUIPMENT COST</b>  |              |   |   | 1,442  |   |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   |              |   |   | 2,147  |   |                          |
| <b>D. CONTRACTOR SUPPORT COST</b>   |              |   |   | 129  |   |                          |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   |              |   |   | 0  |   |                          |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   |              |   |   | 276  |   |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  |              |   |   | 3,994  | <b>J. PRINCIPAL MILESTONES</b>                      |                          |
| <b>G. OTHER COSTS</b>   |              |   |   |  |   | <b>MONTH &amp; YEAR</b>  |
| 1. FACILITY PROVE-OUT COST  |              |   |   | 0  | 1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>    |                          |
| 2. MILITARY CONSTRUCTION APPN.  |              |   |   | 0  | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>              |                          |
|   |              |   |   |  | 3. INITIAL/FINAL PROJECT AWARD <u>Mar-99/Mar-99</u> |                          |
|   |              |   |   |  | 4. CONSTRUCTION COMPLETE <u>Not Applicable</u>      |                          |
|   |              |   |   |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Jul-00</u>    |                          |
|   |              |   |   |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>           |                          |
|   |              |   |   |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>         |                          |
| <b>NARRATIVE EXPLANATION</b>  |              |   |   |  |   |                          |
| This project will upgrade the 5.56mm, 7.62mm, and .50 caliber production lines to use a new cartridge case mouth waterproofing compound. The current methyl chloroform compound is ozone depleting and scheduled for phaseout. The new process is not ozone depleting and is environmentally friendly. Failure to fund this effort will stop production of small and medium caliber ammunition. |              |   |   |  |   |                          |



| INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)  |       |   |       |   |  | 1. DATE<br>February 1998 |
|---|-------|---|-------|---|--|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Install Detonation Chamber/Molten Salt to Replace Open Burn Open Detonation  |       |   |       | 3. END ITEM SUPPORTED MODEL<br>Medium and Large Caliber Projectiles, 40 pound cratering |  |                          |
| 4. PROJECT NUMBER<br>5993357  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |       | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable                              |  |                          |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98 | FY 99   | H. FACILITY  |                          |
| <b>A. CONSTRUCTION COST</b>   |       |   |       | 285   | 1. NAME <u>Iowa Army Ammunition Plant</u>                |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |       |   | 2. LOCATION <u>Middletown, Iowa</u>                      |                          |
| 1.  |       |   |       |   | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>                   |                          |
| 2.  |       |   |       |   |  |                          |
| 3.  |       |   |       |   |  |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  |       |   |       | 369   | <b>I. RELATED PROJECTS</b>                               |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   |       |   |       |   | Project Number   | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   |       |   |       |   | FY & Appn  | Value (\$ mil)           |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   |       |   |       |   | Facing   | Start Date               |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   |       |   |       |   | Compl Date   |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  |       |   |       | 1,792   | Not Applicable   |                          |
| <b>G. OTHER COSTS</b>   |       |   |       |   | <b>J. PRINCIPAL MILESTONES</b>                           |                          |
| 1. FACILITY PROVE-OUT COST  |       |   |       | 0   | 1. CONCEPT DESIGN COMPLETE <u>Not Applicable</u>         |                          |
| 2. MILITARY CONSTRUCTION APPN.  |       |   |       | 0   | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>                   |                          |
|   |       |   |       |   | 3. INITIAL/FINAL PROJECT AWARD <u>Feb-99/Feb-99</u>      |                          |
|   |       |   |       |   | 4. CONSTRUCTION COMPLETE <u>Apr-00</u>                   |                          |
|   |       |   |       |   | 5. EQUIPMENT INSTALLATION COMPLETE <u>Not Applicable</u> |                          |
|   |       |   |       |   | 6. PROVE OUT BEGINS <u>Not Applicable</u>                |                          |
|   |       |   |       |   | 7. PROVE OUT COMPLETE <u>Not Applicable</u>              |                          |
| <b>NARRATIVE EXPLANATION</b>  |       |   |       |   |  |                          |
| This project will construct a detonation chamber and a molten salt bath for the disposal of explosive waste. This facility will process up to 50 pounds of explosive waste at one time (a full M795 artillery round) compared to processing 5 pounds of explosive waste utilizing the current method of sectioning (cutting) of explosives. This project will also provide for the disposal of heavy metals and other hazardous substances. This facility will bring Iowa Army Ammunition Plant (AAP) into compliance with the 1997 requirement to close the Open Burn/Open Detonation (OB/OD) area and will provide a savings of 50 cents-per-pound of waste when compared to off-site |       |   |       |   |  |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>  |              |  |   |   |   | 1. DATE<br>February 1998 |                         |                |        |            |            |
|--|--------------|--|---|---|---|--------------------------|-------------------------|----------------|--------|------------|------------|
| 2. PROJECT TITLE/TYPE<br>Instrumentation to Support Ammunition Production Testing  |              |  | 3. END ITEM SUPPORTED MODEL<br>Initial Production, production acceptance and product improvement for various ammunition items |   |   |                          |                         |                |        |            |            |
| 4. PROJECT NUMBER<br>5995060   |              | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>N/A |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>N/A |   |                          |                         |                |        |            |            |
| <b>ELEMENT OF COST</b>   | <b>FY 96</b> | <b>FY 97</b>                                     | <b>FY 98</b>  | <b>FY 99</b>                                    | <b>H. FACILITY</b>                                      |                          |                         |                |        |            |            |
| <b>A. CONSTRUCTION COST</b>  |              |  |   |   | 1. NAME<br>Yuma Proving Ground & Aberdeen Test Center   |                          |                         |                |        |            |            |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)  |              |  |   |   | 2. LOCATION<br>Yuma, AZ and Aberdeen Proving Ground, MD |                          |                         |                |        |            |            |
| 1.   |              |  |   |   | 3. TYPE (GOGO, GOCO, COCO)<br>GOGO                      |                          |                         |                |        |            |            |
| 2.   |              |  |   |   |   |                          |                         |                |        |            |            |
| 3.   |              |  |   |   |   |                          |                         |                |        |            |            |
| <b>SUBTOTAL EQUIPMENT COST</b>   | 1333         | 1425   | 1400  | 1200  |   |                          |                         |                |        |            |            |
| <b>C. EQUIPMENT INSTALLATION COST</b>  |              |  |   |   |   |                          |                         |                |        |            |            |
| <b>D. CONTRACTOR SUPPORT COST</b>  |              |  |   |   |   |                          |                         |                |        |            |            |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>  |              |  |   |   |   |                          |                         |                |        |            |            |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>  |              |  |   |   |   |                          |                         |                |        |            |            |
| <b>TOTAL FACILITY PROJECT COST</b>   | 1333         | 1425   | 1400  | 1200  |   |                          |                         |                |        |            |            |
| <b>G. OTHER COSTS</b>  |              |  |   |   |   |                          |                         |                |        |            |            |
| 1. FACILITY PROVE-OUT COST   |              |  |   |   |   |                          |                         |                |        |            |            |
| 2. MILITARY CONSTRUCTION APPN.   |              |  |   |   |   |                          |                         |                |        |            |            |
|  |              |  |   |   | <b>I. RELATED PROJECTS</b>                              |                          |                         |                |        |            |            |
|  |              |  |   |   | Project Number  | Title                    | FY & Appn               | Value (\$ mil) | Facing | Start Date | Compl Date |
|  |              |  |   |   |   |                          |                         |                |        |            |            |
|  |              |  |   |   | <b>J. PRINCIPAL MILESTONES</b>                          |                          | <b>MONTH &amp; YEAR</b> |                |        |            |            |
|  |              |  |   |   | 1. CONCEPT DESIGN COMPLETE                              |                          | N/A                     |                |        |            |            |
|  |              |  |   |   | 2. FINAL DESIGN COMPLETE                                |                          | N/A                     |                |        |            |            |
|  |              |  |   |   | 3. INITIAL/FINAL PROJECT AWARD                          |                          | Jan-99                  |                |        |            |            |
|  |              |  |   |   | 4. CONSTRUCTION COMPLETE                                |                          | _____                   |                |        |            |            |
|  |              |  |   |   | 5. EQUIPMENT INSTALLATION COMPLETE                      |                          | Jan-00                  |                |        |            |            |
|  |              |  |   |   | 6. PROVE OUT BEGINS                                     |                          | _____                   |                |        |            |            |
|  |              |  |   |   | 7. PROVE OUT COMPLETE                                   |                          | _____                   |                |        |            |            |
| <b>NARRATIVE EXPLANATION</b>   |              |  |   |   |   |                          |                         |                |        |            |            |
| Yuma Proving Ground and Aberdeen Test Center perform and report results of production acceptance tests for ammunition end items. Ammunition acceptance testing require support from diverse facilities, equipment and instrumentation. The funds at Yuma will be used to replace machine and weld shop equipment, and continuation of upgrade of platform refrigeration package. At Aberdeen funds will procure instrumentation to support firing tests. |              |  |   |   |   |                          |                         |                |        |            |            |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>  |       |   |       |       |  | 1. DATE  |           |                |        |            |            |
|--|-------|---|-------|-------|--|--|-----------|----------------|--------|------------|------------|
| 2. PROJECT TITLE/TYPE<br>Production Support and Equipment Replacement  |       |   |       |       |  | 3. END ITEM SUPPORTED MODEL<br>Load, Assemble, and Pack (LAP) of Primers, Detonators, Delays, Fuzes, and Volcano Items Including M98 Detonator, M53 Delay, and M55 Detonator |           |                |        |            |            |
| 4. PROJECT NUMBER<br>5995316   |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |       |       | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |  |           |                |        |            |            |
| ELEMENT OF COST  | FY 96 | FY 97   | FY 98 | FY 99 | H. FACILITY  |  |           |                |        |            |            |
| A. CONSTRUCTION COST   | 405   | 0   | 713   | 916   | 1. NAME<br>Lone Star Army Ammunition Plant                 |  |           |                |        |            |            |
| B. EQUIPMENT COSTS (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |       |       | 2. LOCATION<br>Texarkana, Texas                            |  |           |                |        |            |            |
| 1.   | 0     | 134   | 112   | 669   | 3. TYPE (GOGO, GOCO, COCO)<br>GOCO                         |  |           |                |        |            |            |
| 2.   |       |   |       |       | I. RELATED PROJECTS  |  |           |                |        |            |            |
| 3.   |       |   |       |       | Project Number   | Title  | FY & Appn | Value (\$ mil) | Facing | Start Date | Compl Date |
| SUBTOTAL EQUIPMENT COST  | 0     | 134   | 112   | 669   | Not Applicable   |  |           |                |        |            |            |
| C. EQUIPMENT INSTALLATION COST   | 0     | 0   | 1     | 155   | J. PRINCIPAL MILESTONES                                    |  |           |                |        |            |            |
| D. CONTRACTOR SUPPORT COST   | 12    | 4   | 53    | 55    | MONTH & YEAR   |  |           |                |        |            |            |
| E. CORPS OF ENGINEERS SUPPORT COST   | 0     | 0   | 0     | 0     | 1. CONCEPT DESIGN COMPLETE                                 |  |           |                |        |            |            |
| F. OTHER IN-HOUSE SUPPORT COST   | 0     | 0   | 0     | 0     | 2. FINAL DESIGN COMPLETE                                   |  |           |                |        |            |            |
| TOTAL FACILITY PROJECT COST  | 417   | 138   | 879   | 1,795 | 3. INITIAL/FINAL PROJECT AWARD                             |  |           |                |        |            |            |
| G. OTHER COSTS   |       |   |       | 0     | 4. CONSTRUCTION COMPLETE                                   |  |           |                |        |            |            |
| 1. FACILITY PROVE-OUT COST   | 0     | 0   | 0     | 0     | 5. EQUIPMENT INSTALLATION COMPLETE                         |  |           |                |        |            |            |
| 2. MILITARY CONSTRUCTION APPN.   | 0     | 0   | 0     | 0     | 6. PROVE OUT BEGINS  |  |           |                |        |            |            |
|  |       |   |       |       | 7. PROVE OUT COMPLETE                                      |  |           |                |        |            |            |
| NARRATIVE EXPLANATION  |       |   |       |       |  |  |           |                |        |            |            |
| This project will replace the compressed air drying equipment which is essential for plant operation and purchase 2 trailer-mounted steam boilers. Further, this effort will repave Concord Church and Old Boston Roads which provide access to the XX Testing Area (Volcano, Detonator, Grenades), and the road to Area G which provides access to Primer, Tracers, Pyrotechnic Mixes, and Expulsion Charges. |       |   |       |       |  |  |           |                |        |            |            |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |       |   |   |  |  | 1. DATE<br>February 1998 |
|---|-------|---|---|--|--|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Production Support and Equipment Replacement   |       |   | 3. END ITEM SUPPORTED MODEL<br>Load, Assemble, and Pack (LAP) of Various Ammunition and Mortar Rounds to include: 40mm Demo Kit, 60/81/120mm Mortar |  |  |                          |
| 4. PROJECT NUMBER<br>5995317  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |  |                          |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98   | FY 99  | H. FACILITY                                |                          |
| <b>A. CONSTRUCTION COST</b>   | 1,013 | 1,458   | 0   | 1,967  | 1. NAME <u>Milan Army Ammunition Plant</u> |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   | 646   | 527   | 1,173   | 838  | 2. LOCATION <u>Milan, Tennessee</u>        |                          |
| 1.  |       |   |   |  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>     |                          |
| 2.  |       |   |   |  |  |                          |
| 3.  |       |   |   |  |  |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  | 646   | 527   | 1,173   | 838  | I. RELATED PROJECTS                        |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   | 736   | 39  | 15  | 398  | Project                                    | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   | 69    | 63  | 89  | 118  | Number                                     |                          |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   | 0     | 0   | 0   | 0  |  |                          |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   | 0     | 0   | 0   | 0  |  |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  | 2,464 | 2,087   | 1,277   | 3,321  |  |                          |
| <b>G. OTHER COSTS</b>   |       |   |   |  | J. PRINCIPAL MILESTONES                    |                          |
| 1. FACILITY PROVE-OUT COST  | 0     | 0   | 0   | 0  |  | MONTH & YEAR             |
| 2. MILITARY CONSTRUCTION APPN.  | 0     | 0   | 0   | 0  | 1. CONCEPT DESIGN COMPLETE                 | <u>Not Applicable</u>    |
|   |       |   |   |  | 2. FINAL DESIGN COMPLETE                   | <u>Sep-97</u>            |
|   |       |   |   |  | 3. INITIAL/FINAL PROJECT AWARD             | <u>Jan-99/Jun-99</u>     |
|   |       |   |   |  | 4. CONSTRUCTION COMPLETE                   | <u>Jun-00</u>            |
|   |       |   |   |  | 5. EQUIPMENT INSTALLATION COMPLETE         | <u>Jul-00</u>            |
|   |       |   |   |  | 6. PROVE OUT BEGINS                        | <u>Not Applicable</u>    |
|   |       |   |   |  | 7. PROVE OUT COMPLETE                      | <u>Not Applicable</u>    |
| <b>NARRATIVE EXPLANATION</b>  |       |   |   |  |  |                          |
| This effort will purchase a fluoroscope cabinet to provide 360-degree x-rays of mortar rounds. A boiler monitoring system will allow all boilers to be monitored and adjustments made from one central location, additional safety features are included. A perimeter fence will be refurbished/replaced around a production area. Five roads will be resurfaced because of extensive deterioration and three buildings will be reroofed to protect stocks. Two production lines will be equipped to recycle pink water, thus reducing the volume of water to be treated. |       |   |   |  |  |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |       |   |  |  |   | 1. DATE<br>February 1998 |
|---|-------|---|--|--|---|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Production Support and Equipment Replacement   |       |   | 3. END ITEM SUPPORTED MODEL<br>Propellants and Explosives (Nitroglycerin and Nitrocellulose) |  |   |                          |
| 4. PROJECT NUMBER<br>5995326  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |  | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |                          |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98  | FY 99  | H. FACILITY   |                          |
| <b>A. CONSTRUCTION COST</b>   | 736   | 2,182   | 456  | 1,786  | 1. NAME <u>Radford Army Ammunition Plant</u>        |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |  |  | 2. LOCATION <u>Radford, Virginia</u>                |                          |
| 1.  | 786   | 604   | 1,901  | 1,161  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>              |                          |
| 2.  |       |   |  |  |   |                          |
| 3.  |       |   |  |  |   |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  | 786   | 604   | 1,901  | 1,161  | I. RELATED PROJECTS                                 |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   | 270   | 403   | 752  | 358  | Project Number                                      | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   | 21    | 54  | 58   | 58   | FY & Appn   | Value (\$ mil)           |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   | 36    | 165   | 0  | 107  | Facing  | Start Date               |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   | 0     | 0   | 0  | 0  | Compl Date  |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  | 1,849 | 3,408   | 3,167  | 3,470  | Not Applicable                                      |                          |
| <b>G. OTHER COSTS</b>   |       |   |  |  | J. PRINCIPAL MILESTONES                             |                          |
| 1. FACILITY PROVE-OUT COST  | 0     | 0   | 0  | 0  | 1. CONCEPT DESIGN COMPLETE <u>May-97</u>            |                          |
| 2. MILITARY CONSTRUCTION APPN.  | 0     | 0   | 0  | 0  | 2. FINAL DESIGN COMPLETE <u>Dec-97</u>              |                          |
|   |       |   |  |  | 3. INITIAL/FINAL PROJECT AWARD <u>May-99/May-99</u> |                          |
|   |       |   |  |  | 4. CONSTRUCTION COMPLETE <u>Aug-97</u>              |                          |
|   |       |   |  |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Sep-97</u>    |                          |
|   |       |   |  |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>           |                          |
|   |       |   |  |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>         |                          |
| <b>NARRATIVE EXPLANATION</b>  |       |   |  |  |   |                          |
| This project will rehabilitate main plant bridges 9102-1 and 9102-2 and replace the following items: Control System at the Nitric Acid Concentrator/Sulfuric Acid Concentrator (NAC/SAC); the Oil Separator System in the C-Line Production Area; the Ammonia Oxidation Plant (AOP) Tower Number 1 where nitric acid is made; and sections of railroad in the Coal Storage Area, Powerhouse Building, Acid Area, and areas surrounding the Filter Building. |       |   |  |  |   |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |       |   |       |  |   | 1. DATE<br>February 1998 |           |                |        |            |            |
|---|-------|---|-------|--|---|--------------------------|-----------|----------------|--------|------------|------------|
| 2. PROJECT TITLE/TYPE<br>Production Support and Equipment Replacement   |       |   |       | 3. END ITEM SUPPORTED MODEL<br>Ammunition Items: 5.56mm, 7.62mm, .50 Caliber, 20mm |   |                          |           |                |        |            |            |
| 4. PROJECT NUMBER<br>5995332  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |       | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable                         |   |                          |           |                |        |            |            |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98 | FY 99  | H. FACILITY   |                          |           |                |        |            |            |
| <b>A. CONSTRUCTION COST</b>   | 2,568 | 759   | 304   | 1,791  | 1. NAME <u>Lake City Army Ammunition Plant</u>      |                          |           |                |        |            |            |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |       |  | 2. LOCATION <u>Independence, Missouri</u>           |                          |           |                |        |            |            |
| 1.  | 0     | 0   | 1,149 | 1,210  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>              |                          |           |                |        |            |            |
| 2.  |       |   |       |  | <b>I. RELATED PROJECTS</b>                          |                          |           |                |        |            |            |
| 3.  |       |   |       |  | Project Number                                      | Title                    | FY & Appn | Value (\$ mil) | Facing | Start Date | Compl Date |
| <b>SUBTOTAL EQUIPMENT COST</b>  | 0     | 0   | 1,149 | 1,210  | Not Applicable                                      |                          |           |                |        |            |            |
| <b>C. EQUIPMENT INSTALLATION COST</b>   | 0     | 0   | 571   | 527  | <b>J. PRINCIPAL MILESTONES</b>                      |                          |           |                |        |            |            |
| <b>D. CONTRACTOR SUPPORT COST</b>   | 53    | 0   | 53    | 103  | <b>MONTH &amp; YEAR</b>                             |                          |           |                |        |            |            |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   | 165   | 0   | 0     | 56   | 1. CONCEPT DESIGN COMPLETE <u>May-97</u>            |                          |           |                |        |            |            |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   | 0     | 0   | 0     | 0  | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>              |                          |           |                |        |            |            |
| <b>TOTAL FACILITY PROJECT COST</b>  | 2,786 | 759   | 2,077 | 3,687  | 3. INITIAL/FINAL PROJECT AWARD <u>Mar-99/Apr-99</u> |                          |           |                |        |            |            |
| <b>G. OTHER COSTS</b>   |       |   |       |  | 4. CONSTRUCTION COMPLETE <u>Sep-00</u>              |                          |           |                |        |            |            |
| 1. FACILITY PROVE-OUT COST  | 0     | 0   | 0     | 0  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Sep-00</u>    |                          |           |                |        |            |            |
| 2. MILITARY CONSTRUCTION APPN.  | 0     | 0   | 0     | 0  | 6. PROVE OUT BEGINS <u>Not Applicable</u>           |                          |           |                |        |            |            |
|   |       |   |       |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>         |                          |           |                |        |            |            |
| <b>NARRATIVE EXPLANATION</b>  |       |   |       |  |   |                          |           |                |        |            |            |
| This project replaces a 20-year-old, poorly functioning accumulator on Bullet Submodule 4 in Building 1 and reconditions two unreliable, 30-year-old Case Head Turn Machines in Building 3. It replaces six Production Quality Control System Computers; 30-year-old, high-maintenance telephone cable (South Plant); 40-year-old leaky water service lines (20mm, Building 139); 42-year-old Optical Crack Detector; and two 41-year-old air compressors. This effort will also upgrade 1-1/2 miles of the severely deteriorated portions of Buckner Road, which is unsafe for continued daily operations, and replace 1 culvert on Dale Pollard Drive on which heavy trucks cannot drive. Further, it will replace the roof on Building 3, which is unrepairable, and rehabilitate the unsafe, rapidly deteriorating conductive floors of Building 1. |       |   |       |  |   |                          |           |                |        |            |            |

| INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)  |       |   |   |  |   | 1. DATE<br>February 1998 |
|---|-------|---|---|--|---|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Production Support and Equipment Replacement   |       |   | 3. END ITEM SUPPORTED MODEL<br>Medium and Large Caliber Projectiles, 40 pound cratering |  |   |                          |
| 4. PROJECT NUMBER<br>5995333  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |                          |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98   | FY 99  | H. FACILITY   |                          |
| <b>A. CONSTRUCTION COST</b>   | 1,321 | 1,048   | 360   | 1,664  | 1. NAME <u>Iowa Army Ammunition Plant</u>           |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |   |  | 2. LOCATION <u>Middletown, Iowa</u>                 |                          |
| 1.  | 697   | 0   | 1,664   | 611  | 3. TYPE (GOGO, GOCO, COCO) <u>GOCO</u>              |                          |
| 2.  |       |   |   |  |   |                          |
| 3.  |       |   |   |  |   |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  | 697   | 0   | 1,664   | 611  | I. RELATED PROJECTS                                 |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   | 91    | 0   | 412   | 1,209  | Project Number                                      | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   | 11    | 0   | 51  | 114  | FY & Appn   | Value (\$ mil)           |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   | 27    | 34  | 0   | 101  | Facing  | Start Date               |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   | 0     | 7   | 0   | 0  | Compl Date  |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  | 2,147 | 1,089   | 2,487   | 3,699  | Not Applicable                                      |                          |
| <b>G. OTHER COSTS</b>   |       |   |   |  | J. PRINCIPAL MILESTONES                             |                          |
| 1. FACILITY PROVE-OUT COST  | 0     | 0   | 0   | 0  | MONTH & YEAR  |                          |
| 2. MILITARY CONSTRUCTION APPN.  | 0     | 0   | 0   | 0  | 1. CONCEPT DESIGN COMPLETE <u>Jan-97</u>            |                          |
|   |       |   |   |  | 2. FINAL DESIGN COMPLETE <u>Nov-97</u>              |                          |
|   |       |   |   |  | 3. INITIAL/FINAL PROJECT AWARD <u>Jan-99/Mar-99</u> |                          |
|   |       |   |   |  | 4. CONSTRUCTION COMPLETE <u>Jun-00</u>              |                          |
|   |       |   |   |  | 5. EQUIPMENT INSTALLATION COMPLETE <u>Jul-00</u>    |                          |
|   |       |   |   |  | 6. PROVE OUT BEGINS <u>Not Applicable</u>           |                          |
|   |       |   |   |  | 7. PROVE OUT COMPLETE <u>Not Applicable</u>         |                          |
| <b>NARRATIVE EXPLANATION</b>  |       |   |   |  |   |                          |
| <p>This project includes the replacement of two water systems, a vacuum pump to improve the quality of the molten explosive, and the replacement of the 50-year-old air compressor for the main heat plant. A new computer system will be purchased and installed in the plant laboratory that will automate the recording of tests and provide increased integrity of the results. Warehouses with only rail access will have truck docks constructed. An oxide of nitrogen (NOX) scrubber will be purchased and installed in the main heating plant. Friable asbestos will be removed and replaced with non-asbestos containing insulation.</p> |       |   |   |  |   |                          |

| <b>INDUSTRIAL FACILITIES COST ANALYSIS (Dollars in Thousands)</b>   |       |   |   |  |   | 1. DATE<br>February 1998 |
|---|-------|---|---|--|---|--------------------------|
| 2. PROJECT TITLE/TYPE<br>Production Support and Equipment Replacement   |       |   | 3. END ITEM SUPPORTED MODEL<br>120mm (M929, M934) , 155mm (M107, M795, M825)0 |  |   |                          |
| 4. PROJECT NUMBER<br>5995342  |       | 5. ANNUAL CAPACITY BEFORE PROJECT (1-8-5)<br>Not Applicable |   | 6. ANNUAL CAPACITY AFTER PROJECT (1-8-5)<br>Not Applicable |   |                          |
| ELEMENT OF COST   | FY 96 | FY 97   | FY 98   | FY 99  | H. FACILITY                                     |                          |
| <b>A. CONSTRUCTION COST</b>   | 578   | 785   | 0   | 749  | 1. NAME<br>Scranton Army Ammunition Plant       |                          |
| <b>B. EQUIPMENT COSTS</b> (Individual equipment cost should be specified for all equipment costing more than \$0.5 million)   |       |   |   |  | 2. LOCATION<br>Scranton, Pennsylvania           |                          |
| 1.  | 0     | 584   | 89  | 986  | 3. TYPE (GOGO, GOCO, COCO)<br>GOCO              |                          |
| 2.  |       |   |   |  |   |                          |
| 3.  |       |   |   |  |   |                          |
| <b>SUBTOTAL EQUIPMENT COST</b>  | 0     | 584   | 89  | 986  | <b>I. RELATED PROJECTS</b>                      |                          |
| <b>C. EQUIPMENT INSTALLATION COST</b>   | 0     | 317   | 25  | 403  | Project Number                                  | Title                    |
| <b>D. CONTRACTOR SUPPORT COST</b>   | 3     | 49  | 12  | 57   | FY & Appn                                       | Value (\$ mil)           |
| <b>E. CORPS OF ENGINEERS SUPPORT COST</b>   | 0     | 0   | 0   | 0  | Facing  | Start Date               |
| <b>F. OTHER IN-HOUSE SUPPORT COST</b>   | 0     | 0   | 0   | 0  | Compl Date                                      |                          |
| <b>TOTAL FACILITY PROJECT COST</b>  | 581   | 1735  | 126   | 2195   | <b>J. PRINCIPAL MILESTONES</b>                  |                          |
| <b>G. OTHER COSTS</b>   |       |   |   |  | <b>MONTH &amp; YEAR</b>                         |                          |
| 1. FACILITY PROVE-OUT COST  | 0     | 0   | 0   | 0  | 1. CONCEPT DESIGN COMPLETE<br>n/c               |                          |
| 2. MILITARY CONSTRUCTION APPN.  | 0     | 0   | 0   | 0  | 2. FINAL DESIGN COMPLETE<br>Nov-97              |                          |
|   |       |   |   |  | 3. INITIAL/FINAL PROJECT AWARD<br>Jan 99/Mar 99 |                          |
|   |       |   |   |  | 4. CONSTRUCTION COMPLETE<br>Aug-01              |                          |
|   |       |   |   |  | 5. EQUIPMENT INSTALLATION COMPLETE<br>Sep-01    |                          |
|   |       |   |   |  | 6. PROVE OUT BEGINS<br>n/c                      |                          |
|   |       |   |   |  | 7. PROVE OUT COMPLETE<br>n/c                    |                          |
| <b>NARRATIVE EXPLANATION</b>  |       |   |   |  |   |                          |
| This project will provide for rehabilitation of the deteriorated heat treat cooling tower which is critical to the continued operational capability of the Heat Treat Facility. This effort will further provide for the rehabilitation of storm drains, drainage, piping, and paved surface drainage collection throughout the facility which are all in a state of deterioration from 90 years of use and modifications. This project will also replce the existing Pneumatic Conveyance System and will provide for structural repair to the Aceco Yard Crane. |       |   |   |  |   |                          |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 7.62MM, ALL TYPES (E02000)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 1296.6      | 25.0    | 9.3     | 12.0    | 4.0     | 10.5    | 15.0    | 15.6    | 15.9    | 16.1    | 0.0         | 1420.0     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 1296.6      | 25.0    | 9.3     | 12.0    | 4.0     | 10.5    | 15.0    | 15.6    | 15.9    | 16.1    | 0.0         | 1420.0     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 1296.6      | 25.0    | 9.3     | 12.0    | 4.0     | 10.5    | 15.0    | 15.6    | 15.9    | 16.1    | 0.0         | 1420.0     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes 7.62MM ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |    | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |       |          | P-1 Line Item Nomenclature:<br>CTG, 7.62MM, ALL TYPES (E02000) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----|--|-------|----------|--|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |    | <b>FY 96</b>   |       |          | <b>FY 97</b>   |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
| ID  | CD | TotalCost  | Qty   | UnitCost | TotalCost  | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |    | \$000  | x1000 | \$       | \$000  | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000 | \$       |
|   |    | 3916   | 6526  | 0.60     | 8760   | 14600 | 0.60     |                     |       |          |                        |       |          |
|   |    | 5361   | 9475  | 0.61     | 3205   | 5723  | 0.56     | 2933                | 5194  | 0.56     | 4096                   | 9859  | 0.42     |
|   |    |  |       |          |  |       |          | 477                 | 904   | 0.53     | 5747                   | 17493 | 0.33     |
|   |    |  |       |          |  |       |          | 633                 | 986   | 0.64     | 48                     |       |          |
|   |    |  |       |          |  |       |          |                     |       |          | 572                    | 320   | 1.79     |
| <b>TOTAL</b>                                      |    | 9277   |       |          | 11965  |       |          | 4043                |       |          | 10463                  |       |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 7.62MM BALL M80 LINKED/M13 (E02003)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 169471      | 6537    | 9475    | 5723    | 5194    | 9859    | 8155    | 8152    | 8152    | 8152    |             | 238870     |
| Gross Cost       | 47.2        | 3.3     | 5.4     | 3.2     | 2.9     | 4.1     | 3.5     | 3.5     | 3.6     | 3.6     | 0.0         | 80.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 47.2        | 3.3     | 5.4     | 3.2     | 2.9     | 4.1     | 3.5     | 3.5     | 3.6     | 3.6     | 0.0         | 80.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 47.2        | 3.3     | 5.4     | 3.2     | 2.9     | 4.1     | 3.5     | 3.5     | 3.6     | 3.6     | 0.0         | 80.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This cartridge is for use in the Machine Gun Series M60, M73, M219, and M240. The straight ball M80 configuration is used in support of training. The bullet consists of a gilding-metal steel jacket with a lead-antimony slug. The cartridge case is brass and the bullet is unpainted. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1979

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 7.62MM BALL M80 LINKED/M13<br>(E02003) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Load, Assemble and Pack                           |  |  | 247          | 545   | 0.45  | 2394         | 5723  | 0.42                | 2174         | 5194  | 0.42                   | 4013         | 9859  | 0.41        |
| Propellant WC846 (LB)                             |  |  | 24           | 4     | 6.50  | 230          | 39    | 5.83                | 235          | 36    | 6.55                   |              |       |             |
| Link M13  |  |  | 12           | 557   | 0.02  | 109          | 5837  | 0.02                | 113          | 5298  | 0.02                   |              |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>283</b>   |       |   | <b>2733</b>  |       |                     | <b>2522</b>  |       |                        | <b>4013</b>  |       |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |             |
| Production Engineering                            |  |  | 9            |       |   | 94           |       |                     | 268          |       |                        | 52           |       |             |
| Quality Assurance                                 |  |  |              |       |   | 4            |       |                     | 6            |       |                        | 2            |       |             |
| Acceptance Testing                                |  |  | 3            |       |   | 30           |       |                     | 29           |       |                        |              |       |             |
| Interim Transportation                            |  |  | 1            |       |   | 26           |       |                     | 18           |       |                        |              |       |             |
| Industrial Stock Support                          |  |  | 12           |       |   |              |       |                     | 90           |       |                        | 29           |       |             |
| CAWCF Gain/Loss Surcharge                         |  |  | 52           |       |   | 318          |       |                     |              |       |                        |              |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>77</b>    |       |   | <b>472</b>   |       |                     | <b>411</b>   |       |                        | <b>83</b>    |       |             |
| <b>TOTAL</b>                                      |  |  | <b>360</b>   |       | <b>0.66</b>   | <b>3205</b>  |       | <b>0.56</b>         | <b>2933</b>  |       | <b>0.56</b>            | <b>4096</b>  |       | <b>0.42</b> |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 7.62MM BALL M80 LINKED/M13<br>(E02003) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| AMMUNITION HARDWARE                               |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 3735         | 8930  | 0.42  |              |       |                     |              |       |                        |              |       |          |
| Propellant WC846 (LB)                             |  |  | 359          | 62    | 5.83  |              |       |                     |              |       |                        |              |       |          |
| Link M13  |  |  | 170          | 9108  | 0.02  |              |       |                     |              |       |                        |              |       |          |
| SubTotal AMMO Hardware                            |  |  | 4264         |       |   |              |       |                     |              |       |                        |              |       |          |
| Production Support Costs                          |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 148          |       |   |              |       |                     |              |       |                        |              |       |          |
| Quality Assurance                                 |  |  | 6            |       |   |              |       |                     |              |       |                        |              |       |          |
| Acceptance Testing                                |  |  | 46           |       |   |              |       |                     |              |       |                        |              |       |          |
| Interim Transportation                            |  |  | 41           |       |   |              |       |                     |              |       |                        |              |       |          |
| Industrial Stock Support                          |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 496          |       |   |              |       |                     |              |       |                        |              |       |          |
| SubTotal Prod. Support                            |  |  | 737          |       |   |              |       |                     |              |       |                        |              |       |          |
| TOTAL   |  |  | 5001         |       | 0.56  |              |       |                     |              |       |                        |              |       |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 7.62MM BALL M80 LINKED/M13 (E02003)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Feb-96     | Oct-96                 | 545       | 0.45         |                  |                  |                |
| FY 96                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Oct-96     | Apr-97                 | 8930      | 0.42         |                  |                  |                |
| FY 97                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-97     | Apr-98                 | 5723      | 0.42         | Yes              |                  | Oct-96         |
| FY 98                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Feb-98     | Oct-98                 | 5194      | 0.42         | Yes              |                  | Nov-96         |
| FY 99***                           | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-99     | Oct-99                 | 9859      | 0.41         | Yes              |                  | Oct-98         |
| Propellant WC846 (LB)<br>FY 96     | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-96     | Sep-96                 | 4         | 6.50         |                  |                  |                |
| FY 96                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Nov-96     | Jan-97                 | 62        | 5.83         |                  |                  |                |
| FY 97                              | Primex<br>St. Marks, FL                       | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 39        | 5.83         | Yes              |                  | Jun-97         |
| FY 98                              | Primex<br>St. Marks, FL                       | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 36        | 6.55         | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS: \*\*\* Complete Round

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **CTG 7.62MM BALL M80 LINKED/M13 (E02003)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location          | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|----------------------------------|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Link M13<br>FY 96                  | Valentec Wells<br>Costa Mesa, Ca | C/FP                     | IOC             | Mar-96     | Sep-96                 | 557          | 0.02            |                  |                  |                |
| FY 96                              | Valentec Wells<br>Costa Mesa, Ca | C/FP                     | IOC             | Nov-96     | Mar-97                 | 9108         | 0.02            |                  |                  |                |
| FY 97                              | Valentec Wells<br>Costa Mesa, Ca | C/FP                     | IOC             | Sep-97     | Oct-97                 | 5837         | 0.02            | Yes              |                  | Jul-97         |
| FY 98                              | TBS                              | C/FP                     | IOC             | Mar-98     | Sep-98                 | 5298         | 0.02            | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                   | N/A                      | N/A             | N/A        | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected











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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 7.62MM BLANK M82 LINKED/M13 (E01902)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 1902583     |         |         |         | 904     | 17493   | 20000   | 20000   | 20000   | 20000   |             | 2000980    |
| Gross Cost       | 232.6       | 0.0     | 0.0     | 0.0     | 0.5     | 5.7     | 6.7     | 6.8     | 6.9     | 7.0     | 0.0         | 266.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 232.6       | 0.0     | 0.0     | 0.0     | 0.5     | 5.7     | 6.7     | 6.8     | 6.9     | 7.0     | 0.0         | 266.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 232.6       | 0.0     | 0.0     | 0.0     | 0.5     | 5.7     | 6.7     | 6.8     | 6.9     | 7.0     | 0.0         | 266.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This cartridge consists of a primer and propellant contained in a brass case shaped to conform to the configuration of the service round. The propellant is held in by a wad. The mouth of the cartridge is sealed and crimped. The Blank Firing Attachment (BFA) M21 is installed on the M240 Machine Gun to enable blank ammunition to be fired and to provide back pressure to sustain continuous firing. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1958

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 7.62MM BLANK M82 LINKED/M13<br>(E01902) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  |              |       |  |              |       |                     | 374          | 904   | 0.41                   | 5524         | 17493 | 0.32     |
| Link M13  |  |  |              |       |  |              |       |                     | 20           | 922   | 0.02                   |              |       |          |
| Propellant WC818 (LB)                             |  |  |              |       |  |              |       |                     | 17           | 3     | 6.55                   |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |  |              |       |                     | 411          |       |                        | 5524         |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  |              |       |  |              |       |                     | 44           |       |                        | 180          |       |          |
| Quality Assurance                                 |  |  |              |       |  |              |       |                     | 1            |       |                        | 5            |       |          |
| Acceptance Testing                                |  |  |              |       |  |              |       |                     | 5            |       |                        |              |       |          |
| Interim Transportation                            |  |  |              |       |  |              |       |                     | 3            |       |                        |              |       |          |
| Industrial Stock Support                          |  |  |              |       |  |              |       |                     | 13           |       |                        | 38           |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |  |              |       |                     | 66           |       |                        | 223          |       |          |
| <b>TOTAL</b>                                      |  |  |              |       |  |              |       |                     | 477          |       | 0.53                   | 5747         |       | 0.33     |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |   |                        |              |                 |                  |                  | Date:          |
|--|---|--------------------------|-----------------|---|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |   |                        |              |                 |                  |                  | February 1998  |
| Weapon System Type:  |   |                          |                 | P-1 Line Item Nomenclature:<br>CTG 7.62MM BLANK M82 LINKED/M13 (E01902) |                        |              |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date  | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Load, Assemble and Pack<br>FY 94   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-94  | Oct-94                 | 24193        | 0.28            |                  |                  |                |
| FY 98  | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Feb-98  | Oct-98                 | 904          | 0.41            | Yes              |                  | Oct-97         |
| FY 99***   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98  | Oct-99                 | 17493        | 0.32            | Yes              |                  | Oct-98         |
| Link M13<br>FY 94  | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Jan-94  | Jun-94                 | 24677        | 0.02            |                  |                  |                |
| FY 98  | TBS   | C/FP                     | IOC             | Jan-98  | Jun-98                 | 922          | 0.02            | Yes              |                  | Oct-97         |
| FY99   | Plant Procured                                | N/A                      | N/A             | N/A   | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |
| Propellant WC818 (LB)<br>FY 94   | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-94  | Sep-94                 | 56           | 5.98            |                  |                  |                |
| FY 98  | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-98  | Sep-98                 | 3            | 6.55            | Yes              |                  | Oct-97         |
| FY 99  | Plant Procured                                | N/A                      | N/A             | N/A   | N/A                    | N/A          | N/A             | N/A              |                  | N/A            |
| REMARKS: ***Complete Round<br>TBS - To Be Selected                                       |   |                          |                 |   |                        |              |                 |                  |                  |                |







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 7.62MM 4 BALL/1 TRACER LINKED (E02002)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 820668      | 24242   | 6526    | 14600   |         |         |         |         |         |         |             | 866036     |
| Gross Cost       | 234.4       | 13.1    | 3.9     | 8.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 260.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 234.4       | 13.1    | 3.9     | 8.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 260.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 234.4       | 13.1    | 3.9     | 8.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 260.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This item consists of ball and tracer rounds linked four to one and is used in Machine Guns Series M60 and M240. It is intended for use against personnel and non-armor targets. This item is Code A, approved for service use.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. Procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1957

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 7.62MM 4 BALL/1 TRACER LINKED<br>(E02002) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 2937         | 6526  | 0.45   | 6570         | 14600 | 0.45                |              |       |                        |              |       |          |
| Link M13  |  |  | 124          | 6657  | 0.02   | 278          | 14892 | 0.02                |              |       |                        |              |       |          |
| Propellant WC846 (LB)                             |  |  | 213          | 37    | 5.83   | 476          | 82    | 5.83                |              |       |                        |              |       |          |
| Propellant WC846T (LB)                            |  |  | 53           | 9     | 5.83   | 119          | 20    | 5.83                |              |       |                        |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 3327         |       |  | 7443         |       |                     |              |       |                        |              |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 128          |       |  | 286          |       |                     |              |       |                        |              |       |          |
| Quality Assurance                                 |  |  | 5            |       |  | 10           |       |                     |              |       |                        |              |       |          |
| Acceptance Testing                                |  |  | 36           |       |  | 81           |       |                     |              |       |                        |              |       |          |
| Interim Transportation                            |  |  | 32           |       |  | 71           |       |                     |              |       |                        |              |       |          |
| Industrial Stock Support                          |  |  |              |       |  | 1            |       |                     |              |       |                        |              |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 388          |       |  | 868          |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 589          |       |  | 1317         |       |                     |              |       |                        |              |       |          |
| <b>TOTAL</b>                                      |  |  | 3916         |       | 0.60   | 8760         |       | 0.60                |              |       |                        |              |       |          |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 7.62MM 4 BALL/1 TRACER LINKED (E02002)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Olin Corp (LCAAP)<br>Independence, MO         | SS/CPAF                  | IOC             | Jul-97     | May-98                 | 6526      | 0.45         |                  |                  |                |
| FY 97                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-97     | Oct-97                 | 14600     | 0.45         | Yes              |                  | Nov-96         |
| Link M13<br>FY 96                  | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Sep-97     | Nov-97                 | 6657      | 0.02         |                  |                  |                |
| FY 97                              | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Feb-97     | Jul-97                 | 14892     | 0.02         | Yes              |                  | Nov-96         |
| Propellant WC846 (LB)<br>FY 96     | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 37        | 5.83         |                  |                  |                |
| FY 97                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 82        | 5.83         | Yes              |                  | Jun-97         |
| Propellant WC846<br>FY 96          | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 9         | 5.83         |                  |                  |                |
| FY 97                              | Olin Corp<br>St. Marks, FL                    | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 20        | 5.83         | Yes              |                  | Jun-97         |

REMARKS:



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 60MM 1/10 PRAC M766 (E72000)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 9           | 2       | 9       | 8       |         |         | 4       | 6       | 5       | 6       |             | 49         |
| Gross Cost       | 6.4         | 3.3     | 6.2     | 5.2     | 0.0     | 0.0     | 5.3     | 4.3     | 4.4     | 4.7     | 0.0         | 39.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 6.4         | 3.3     | 6.2     | 5.2     | 0.0     | 0.0     | 5.3     | 4.3     | 4.4     | 4.7     | 0.0         | 39.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 6.4         | 3.3     | 6.2     | 5.2     | 0.0     | 0.0     | 5.3     | 4.3     | 4.4     | 4.7     | 0.0         | 39.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M766 60mm mortar cartridge is a low-cost, short range, refurbishable practice round that will replace a majority of the standard High Explosive (HE) rounds used in the 60mm mortar training strategy. It consists of a M779 point detonating practice fuze which provides flash, bang and smoke; a steel body which approximates the shape of the 60mm HE service round; and an ignition cartridge which provides the limited propulsion requirement. After firing, the round is retrieved and refurbished. Refurbishment will be accomplished by replacing the fuze, the obturating ring, range adjustment plugs, the ignition cartridge, dud plugs and the breech plug. The round is designed to be used at least 25 times (i.e., original firing plus 24 refurbishments). This item is code A: It has been type classified and has been approved for service use.

**JUSTIFICATION:**

This is a training-unique item; not used in combat. Use of the M766 will reduce training costs and environmental impacts while expanding the training environment by allowing soldiers to train in locations other than full ranges or ranges used for firing full range service rounds. The FY00 procurement supports annual peacetime training requirements and builds toward authorized depot level for training unique ammunition.

Type Classification Date: JUN 93  
 Acquisition Manager: PM MORTARS

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |                    |             | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM 1/10 PRAC M766<br>(E72000) |                    |             | Weapon System Type: |                    |             | Date:<br>February 1998 |                    |             |                |
|---|--|--|--------------------|-------------|---|--------------------|-------------|---------------------|--------------------|-------------|------------------------|--------------------|-------------|----------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID<br>CD   | <b>FY 96</b>       |             |   | <b>FY 97</b>       |             |                     | <b>FY 98</b>       |             |                        | <b>FY 99</b>       |             |                |
|   |  |  | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$  | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$      | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$         | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$ |
| <b>AMMUNITION HARDWARE</b>                        |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| 1. Complete Round                                 |  |  | 761                | 9350        | 81  | 633                | 7666        | 83                  |                    |             |                        |                    |             |                |
| 2. Refurbish Kits                                 |  |  | 4004               | 224400      | 18  | 3329               | 183984      | 18                  |                    |             |                        |                    |             |                |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>4765</b>        |             |   | <b>3962</b>        |             |                     |                    |             |                        |                    |             |                |
| <b>Production Support Costs</b>                   |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| Production Engineering                            |  |  | 1126               |             |   | 940                |             |                     |                    |             |                        |                    |             |                |
| Quality Assurance                                 |  |  | 253                |             |   | 220                |             |                     |                    |             |                        |                    |             |                |
| Acceptance Testing                                |  |  | 54                 |             |   | 47                 |             |                     |                    |             |                        |                    |             |                |
| Interim Transportation                            |  |  | 46                 |             |   | 40                 |             |                     |                    |             |                        |                    |             |                |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>1479</b>        |             |   | <b>1247</b>        |             |                     |                    |             |                        |                    |             |                |
| <b>COST - Nonrecurring</b>                        |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| <b>TOTAL</b>                                      |  |  | <b>6244</b>        |             |   | <b>5209</b>        |             |                     |                    |             |                        |                    |             |                |

| Exhibit P-5a, Budget Procurement History and Planning  |                              |                          |                 |            |                        |          |              |                  |                  | Date:  |
|--|------------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |                              |                          |                 |            |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:  |                              |                          |                 |            |                        |          |              |                  |                  | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM 1/10 PRAC M766 (E72000) |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location      | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date   |
| 1. Complete Round  |                              |                          |                 |            |                        |          |              |                  |                  |  |
| FY 96  | Pocal Industries, Moscow, PA | OPT                      | TACOM           | Feb-97     | May-98                 | 4849     | 81           |                  |                  |  |
| FY 96  | Pocal Industries, Moscow, PA | OPT                      | TACOM           | Aug-97     | Sep-98                 | 4501     | 81           |                  |                  |  |
| FY 97  | Pocal Industries, Moscow, PA | OPT                      | TACOM           | Feb-97     | Nov-98                 | 7666     | 83           | YES              | N/A              |  |
| 2. Refurbish Kits  |                              |                          |                 |            |                        |          |              |                  |                  |  |
| FY 96  | Pocal Industries, Moscow, PA | OPT                      | TACOM           | Feb-97     | May-98                 | 116376   | 18           |                  |                  |  |
| FY 96  | Pocal Industries, Moscow, PA | OPT                      | TACOM           | Aug-97     | Sep-98                 | 108024   | 18           |                  |                  |  |
| FY 97  | Pocal Industries, Moscow, PA | OPT                      | TACOM           | Feb-97     | Nov-98                 | 183984   | 18           | YES              | N/A              |  |
| <b>REMARKS:</b> Award of FY95 Contract with FY96 option was delayed pending successful completion of first article test on initial (FY93) contract. Initial FY96 and FY97 requirements were awarded at the same time as FY95 basic contract. |                              |                          |                 |            |                        |          |              |                  |                  |  |







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: AMMO COMPONENTS, ALL TYPES (EB0016)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 753.5       | 5.5     | 2.1     | 1.2     | 4.7     | 7.2     | 7.0     | 6.9     | 7.0     | 7.1     | 0.0         | 802.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 753.5       | 5.5     | 2.1     | 1.2     | 4.7     | 7.2     | 7.0     | 6.9     | 7.0     | 7.1     | 0.0         | 802.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 753.5       | 5.5     | 2.1     | 1.2     | 4.7     | 7.2     | 7.0     | 6.9     | 7.0     | 7.1     | 0.0         | 802.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes all Ammo Components/Support items.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>AMMO COMPONENTS, ALL TYPES<br>(EB0016) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| COMPONENTS FOR RENOVATION OF FIELD STOCK          |  |  | 543          |      |   | 100          |      |                     | 4622         |      |                        | 6234         |      |          |
| WEAPON COMP IN SPT OF PROOF/ACPT TESTING          |  |  | 1592         |      |   | 1061         |      |                     | 93           |      |                        | 1007         |      |          |
| <b>TOTAL</b>                                      |  |  | <b>2135</b>  |      |   | <b>1161</b>  |      |                     | <b>4715</b>  |      |                        | <b>7241</b>  |      |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: COMPONENTS FOR RENOVATION OF FIELD STOCK (EA0500)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 495.0       | 4.4     | 0.5     | 0.1     | 4.6     | 6.2     | 6.0     | 5.9     | 6.0     | 6.1     | 0.0         | 534.8      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 495.0       | 4.4     | 0.5     | 0.1     | 4.6     | 6.2     | 6.0     | 5.9     | 6.0     | 6.1     | 0.0         | 534.8      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 495.0       | 4.4     | 0.5     | 0.1     | 4.6     | 6.2     | 6.0     | 5.9     | 6.0     | 6.1     | 0.0         | 534.8      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

These components are used to support the renovation of ammunition items currently in the Army inventory. All components are centrally managed and procured by the Industrial Operations Command. Items support worldwide ammunition requirements in order to maintain the inventory in a serviceable status ready for issue to the troops.

**JUSTIFICATION:**

The requirements determination takes into consideration the need for the end item to which the component applies, the capability and the capacity of the workforce to apply the component and the capability of the storage, distribution and transportation system to move the end item and component if necessary. The components are required to bring stocks that are no longer in an issuable condition back to an issuable condition. The alternative is to fill requirements with new procurement. It is much more cost effective to correct most stockpile deficiencies through renovation than through new procurement.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>COMPONENTS FOR RENOVATION OF<br>FIELD STOCK (EA0500) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| Components for Renovation of Field Stock          |  |  | 543          |      |   | 100          |      |                     | 4622         |      |                        | 6234         |      |          |
| <b>SUB-TOTAL</b>                                  |  |  | <b>543</b>   |      |   | <b>100</b>   |      |                     | <b>4622</b>  |      |                        | <b>6234</b>  |      |          |
| <b>TOTAL</b>                                      |  |  | <b>543</b>   |      |   | <b>100</b>   |      |                     | <b>4622</b>  |      |                        | <b>6234</b>  |      |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: WEAPON COMP IN SPT OF PROOF/ACPT TESTING (EA1200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 38.4        | 1.1     | 1.6     | 1.1     | 0.1     | 1.0     | 1.0     | 1.0     | 1.0     | 1.0     | 0.0         | 47.4       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 38.4        | 1.1     | 1.6     | 1.1     | 0.1     | 1.0     | 1.0     | 1.0     | 1.0     | 1.0     | 0.0         | 47.4       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 38.4        | 1.1     | 1.6     | 1.1     | 0.1     | 1.0     | 1.0     | 1.0     | 1.0     | 1.0     | 0.0         | 47.4       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This funding line procures weapons and weapons components required by the U.S. Army Test and Evaluation Command (TECOM) in support of ammunition testing. These components are requisitioned from the Army Stock Fund on a reimbursable basis. Required components include mounts, tubes, breech assemblies, and other main weapon components that are not supportable by requisition objectives at test activity locations.

**JUSTIFICATION:**

These weapon components are required to support proof and acceptance testing at various Army Proving Grounds. Without these components, the Army would be unable to conduct the testing required to accept ammunition end items into its inventory.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>WEAPON COMP IN SPT OF PROOF/ACPT<br>TESTING (EA1200) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| Weapon Comp in Spt of Proof/Acpt Testing          |  |  | 1592         |      |   | 1061         |      |                     | 93           |      |                        | 1007         |      |          |
| <b>SUB TOTAL</b>                                  |  |  | <b>1592</b>  |      |   | <b>1061</b>  |      |                     | <b>93</b>    |      |                        | <b>1007</b>  |      |          |
| <b>TOTAL</b>                                      |  |  | <b>1592</b>  |      |   | <b>1061</b>  |      |                     | <b>93</b>    |      |                        | <b>1007</b>  |      |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG ARTY 105MM DPICM XM915 (E53500)

Program Elements for Code B Items: 64802/D531  
 Code: B  
 Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 5       | 4       |         |         |         |         |         |             | 9          |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 13.5    | 9.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 23.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 13.5    | 9.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 23.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 13.5    | 9.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 23.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 The 105MM Dual Purpose Improved Conventional Munition (DPICM) XM915 is the extended range round for the M119A1 howitzer. This cartridge incorporates the M200 propelling charge whose projectiles contain a sub-munition payload of 42 dual purpose XM80 grenades. The projectiles utilize a one piece all steel body/ogive assembly which is scalloped to contain the cargo without additional ancillary hardware (keys, splines, spacers, etc.). Projectile functioning is the same as the 155mm ICM round, the M483A1. The XM80 is a 1.22 inch diameter fragmentation/shaped charge grenade optimized for the 105mm system. It uses a post embossed Rhombus fragmentation pattern for superior anti-personnel performance. In response to the problem of hazardous battlefield duds, the XM80 grenade will be the first ICM bomblet to utilize self destruct fuzing. This item is code B, PE 64802, not approved for service use. This item has not transitioned to the SMCA and will be produced as actual cost.

**JUSTIFICATION:**  
 Procurement supports the acquisition of a more lethal artillery round and provides "deep strike" round capability for the Light Infantry Division (LID). It increases sustainability of the LID on the battlefield. It replaces the Cartridge, 105mm and Anti-Personnel (APICM), M444. By utilizing a self-destruct fuze with sub-munition, the dud rate problem of any unexploded sub-munitions should be greatly reduced. Procurement builds war reserve stockpiles in support of the Army's procurement goal.

Type Classification Date: TC LRP February 1998  
 TC STD September 1998



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG ARTY 105MM DPICM XM915 (E53500) |               |       | Weapon System Type:<br>M119A1 howitzer |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|---------------|-------|--|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b>  |       |  | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost     | Qty   | UnitCost                               | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000         | x1000 | \$                                     | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |               |       |  |              |       |                        |              |       |          |
| 1. Load, Assemble, and Pack                       |  | B  |              |       |  | 1,169         | 5     | 256.92                                 | 956          | 4     | 262.64                 |              |       |          |
| 2. Proj Mtl Parts                                 |  |  |              |       |  | 3,663         | 5     | 750.00                                 | 2,802        | 4     | 766.62                 |              |       |          |
| 3. Fuze, ET M762                                  |  |  |              |       |  | 341           | 5     | 69.82                                  | 457          | 4     | 125.03                 |              |       |          |
| 4. Gren Body Assy                                 |  |  |              |       |  | 1,934         | 205   | 9.43                                   | 1,480        | 153   | 9.64                   |              |       |          |
| 5. Fuzes, XM234 Gren SD                           |  |  |              |       |  | 3,077         | 205   | 15.00                                  | 2,353        | 153   | 15.33                  |              |       |          |
| 6. Cartridge Case XM217                           |  |  |              |       |  | 221           | 5     | 45.25                                  | 169          | 4     | 46.24                  |              |       |          |
| 7. Container PA 117                               |  |  |              |       |  | 346           | 5     | 70.84                                  | 265          | 4     | 72.50                  |              |       |          |
| 8. Other Hardware                                 |  |  |              |       |  | 746           |       |  | 566          |       |                        |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |  | <b>11,497</b> |       |  | <b>9,048</b> |       |                        |              |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |               |       |  |              |       |                        |              |       |          |
| 1. Production Engineering                         |  |  |              |       |  | 1016          |       |  | 414          |       |                        |              |       |          |
| 2. Quality Assurance                              |  |  |              |       |  | 55            |       |  | 13           |       |                        |              |       |          |
| 3. Proof & Acceptance                             |  |  |              |       |  | 330           |       |  | 260          |       |                        |              |       |          |
| 4. Interim Transportation                         |  |  |              |       |  | 109           |       |  | 86           |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |  | <b>1,510</b>  |       |  | <b>773</b>   |       |                        |              |       |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |  |               |       |  |              |       |                        |              |       |          |
| 1. Government Furnished Material                  |  |  |              |       |  | -132          |       |  | -96          |       |                        |              |       |          |
| 2. First Article Testing                          |  |  |              |       |  | 100           |       |  | 50           |       |                        |              |       |          |
| 3. Firing Tables/Software Update                  |  |  |              |       |  | 500           |       |  |              |       |                        |              |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |  | <b>468</b>    |       |  | <b>-46</b>   |       |                        |              |       |          |
| <b>TOTAL</b>                                      |  |  |              |       |  | <b>13,475</b> |       | <b>2,961.54</b>                        | <b>9,775</b> |       | <b>2,685.44</b>        |              |       |          |

| Exhibit P-5a, Budget Procurement History and Planning   |  |                          |                 |  |                        |          |              |                  |                  | Date:          |
|---|--|--------------------------|-----------------|--|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition                          |  |                          |                 |  |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:   |  |                          |                 | P-1 Line Item Nomenclature:<br>CTG ARTY 105MM DPICM XM915 (E53500) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                  | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. Load, Assemble, and Pack   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | Day & Zimmerman Inc                      | SS/CPFF                  | IOC             | Mar-98   | Feb-99                 | 4,550    | 256.92       |                  |                  |                |
| FY 98   | Day & Zimmerman Inc<br>(Lone Star AAP)   | SS/CPFF                  | IOC             | Mar-98   | Aug-99                 | 3,640    | 262.64       | Yes              |                  |                |
| 2. Proj Mtl Parts   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | Chamberlain Mfg. (Scranton, PA)          | SS/FP                    | TACOM-ARDEC     | Mar-98   | Aug-98                 | 4,884    | 750.00       |                  |                  |                |
| FY 98   | Chamberlain Mfg. (Scranton, PA)          | SS/FP                    | TACOM-ARDEC     | Mar-98   | Feb-99                 | 3,655    | 766.62       | Yes              |                  |                |
| 3. Fuze, ET M762  |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | Multiple                                 | Stock                    | IOC             | Stock  | Stock                  | 4,884    | 69.82        |                  |                  |                |
| FY 98   | Multiple                                 | Stock                    | IOC             | Stock  | Stock                  | 3,655    | 125.03       | Yes              |                  |                |
| 4. Gren Body Assy   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | Amron Corporation                        | SS/FP                    | TACOM-ARDEC     | Mar-98   | Aug-98                 | 205,103  | 9.43         |                  |                  |                |
| FY 98   | Amron Corporation<br>Waukesha, Wis.      | SS/FP                    | TACOM-ARDEC     | Mar-98   | Feb-99                 | 153,492  | 9.64         | Yes              |                  |                |
| 5. Fuzes, XM234 Gren SD   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | KDI Precision Products                   | SS/FP                    | TACOM-ARDEC     | Mar-98   | Aug-98                 | 205,103  | 15.00        |                  |                  |                |
| FY 98   | KDI Precision Products<br>Cincinnati, OH | SS/FP                    | TACOM-ARDEC     | Mar-98   | Feb-99                 | 153,492  | 15.33        | Yes              |                  |                |
| 6. Cartridge Case XM217   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | UNKNOWN                                  | C/FP                     | TACOM-ARDEC     | Mar-98   | Aug-98                 | 4,884    | 45.25        |                  |                  |                |
| FY 98   | UNKNOWN                                  | C/FP                     | TACOM-ARDEC     | Mar-98   | Feb-99                 | 3,655    | 46.24        | Yes              |                  |                |
| 7. Container PA 117   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97   | UNKNOWN                                  | C/FP                     | TACOM-ARDEC     | Apr-98   | Sep-98                 | 4,884    | 70.84        |                  |                  |                |
| FY 98   | UNKNOWN                                  | C/FP                     | TACOM-ARDEC     | Apr-98   | Mar-99                 | 3,655    | 72.50        | Yes              |                  |                |
| REMARKS: * GFM as shown on the P5 consists of COMP A5 and M10 Propellant and are part of the Other Hardware line. |  |                          |                 |  |                        |          |              |                  |                  |                |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 60MM ILLUM M721/M767 (E70400)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             | 25      | 52      | 28      |         |         |         |         |         |         |             | 105        |
| Gross Cost       | 4.7         | 10.6    | 22.4    | 13.1    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 50.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 4.7         | 10.6    | 22.4    | 13.1    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 50.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 4.7         | 10.6    | 22.4    | 13.1    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 50.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 60mm Mortar Illuminating cartridge is designed for use with the M224 lightweight company mortar system (LWCMS) in all light infantry battalions including Airborne, Air Assault and Ranger. The M721 will provide illuminating capability at the same effective range as the companion High Explosive (HE) Cartridges, M720 (Range 3,200-3,800 Meters Maximum). This is triple the range of the ammunition it replaces. The HE and Illum Cartridges are basically similar, thus allowing a gun to illuminate and fire on the same target without adjustments. The FY96 and FY97 Procurements include both white light and Infrared Illuminant. This Item is Code A: it is Type Classified (TC) and has been approved for service use.

**JUSTIFICATION:**

The FY97 procurement meets the annual peacetime training requirements and builds a war reserve stockpile in support of fielded Mortar Weapons.

Type classification date: white light SEP 87; infrared JUN 98  
 Acquisition manager: PM MORTARS

| <b>Exhibit P-5, Weapon Ammo Cost Analysis</b> |    | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |        |            | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM ILLUM M721/M767 (E70400) |        |            | Weapon System Type: |      |          | Date:<br>February 1998 |      |          |
|---|----|---|--------|------------|---|--------|------------|---------------------|------|----------|------------------------|------|----------|
| <b>Ammunition Cost Elements</b>               |    | <b>FY 96</b>  |        |            | <b>FY 97</b>  |        |            | <b>FY 98</b>        |      |          | <b>FY 99</b>           |      |          |
| ID  | CD | TotalCost   | Qty    | UnitCost   | TotalCost   | Qty    | UnitCost   | TotalCost           | Qty  | UnitCost | TotalCost              | Qty  | UnitCost |
|   |    | \$000   | Each   | \$         | \$000   | Each   | \$         | \$000               | Each | \$       | \$000                  | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                    |    |   |        |            |   |        |            |                     |      |          |                        |      |          |
|   |    | 3195  | 19366  | 165        | 1256  | 7790   | 161        |                     |      |          |                        |      |          |
|   |    | 6713  | 32710  | 205        | 3970  | 19790  | 201        |                     |      |          |                        |      |          |
|   |    | 1397  | 216636 | 6          |   |        |            |                     |      |          |                        |      |          |
|   |    |   |        |            | 567   | 114733 | 5          |                     |      |          |                        |      |          |
|   |    | 599   | 54159  | 11         | 373   | 28683  | 13         |                     |      |          |                        |      |          |
|   |    | 6719  | 54159  | 124        | 3636  | 28683  | 127        |                     |      |          |                        |      |          |
|   |    | 252   | 54159  | 5          | 179   | 28683  | 6          |                     |      |          |                        |      |          |
|   |    | <b>18875</b>  |        |            | <b>9981</b>   |        |            |                     |      |          |                        |      |          |
| <b>Production Support Costs</b>               |    |   |        |            |   |        |            |                     |      |          |                        |      |          |
|   |    | 1007  |        |            | 1974  |        |            |                     |      |          |                        |      |          |
|   |    | 526   |        |            | 358   |        |            |                     |      |          |                        |      |          |
|   |    | 302   |        |            | 168   |        |            |                     |      |          |                        |      |          |
|   |    | 82  |        |            | 54  |        |            |                     |      |          |                        |      |          |
|   |    | <b>1917</b>   |        |            | <b>2554</b>   |        |            |                     |      |          |                        |      |          |
| <b>COST - Nonrecurring</b>                    |    |   |        |            |   |        |            |                     |      |          |                        |      |          |
|   |    | 1586  |        |            | 592   |        |            |                     |      |          |                        |      |          |
|   |    |   |        |            |   |        |            |                     |      |          |                        |      |          |
|   |    | <b>1586</b>   |        |            | <b>592</b>  |        |            |                     |      |          |                        |      |          |
| <b>TOTAL</b>                                  |    | <b>22378</b>  |        | <b>430</b> | <b>13127</b>  |        | <b>476</b> |                     |      |          |                        |      |          |

| Exhibit P-5a, Budget Procurement History and Planning  |  |                              |                            |   |                                      |                                 |                          |                          |                          | Date:          |
|--|--|------------------------------|----------------------------|---|--------------------------------------|---------------------------------|--------------------------|--------------------------|--------------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |  |                              |                            |   |                                      |                                 |                          |                          |                          | February 1998  |
| Weapon System Type:  |  |                              |                            | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM ILLUM M721/M767 (E70400) |                                      |                                 |                          |                          |                          |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location  | Contract Method and Type     | Location of PCO            | Award Date  | Date of First Delivery               | QTY Each                        | Unit Cost \$             | Specs Avail Now?         | Date Revsn Avail         | RFP Issue Date |
| 1. CTG,M721,LAP<br>FY 96<br>FY 97  | Pine Bluff Arsenal, Pine Bluff, AR<br>Pine Bluff Arsenal, Pine Bluff, AR   | SS/CR<br>SS/CR               | TACOM<br>TACOM             | Sep-96<br>Feb-97  | Apr-98<br>Sep-98                     | 19366<br>7790                   | 165<br>161               | Yes<br>Yes               | N/A<br>N/A               |                |
| CTG,XM767,LAP<br>FY 96<br>FY 97  | Pine Bluff Arsenal, Pine Bluff, AR<br>Pine Bluff Arsenal, Pine Bluff, AR   | SS/CR<br>SS/CR               | TACOM<br>TACOM             | Sep-96<br>Feb-97  | Feb-98<br>Nov-98                     | 32710<br>19790                  | 205<br>201               | Yes<br>Yes               | N/A<br>N/A               |                |
| 2. PROP CHG M204<br>FY 96  | GDOS(Milan AAP), Milan, TN   | SS/CPAF                      | IOC                        | Jun-96  | Jul-97                               | 216636                          | 6                        | Yes                      | N/A                      |                |
| 3. PROP CHG M235<br>FY 97  | Unknown  | C/FP                         | TACOM                      | Jan-98  | Aug-98                               | 114733                          | 5                        | Yes                      | N/A                      | Jun-97         |
| 4. IGN CTG M702<br>FY 96<br>FY 97  | GDOS(Milan AAP), Milan, TN<br>GDOS(Milan AAP), Milan, TN   | SS/CPAF<br>C/FP              | IOC<br>TACOM               | Sep-96<br>Sep-97  | Jun-97<br>Jun-98                     | 54159<br>28683                  | 11<br>13                 | Yes<br>Yes               | N/A<br>N/A               |                |
| 5. FUZE, M776 MTSQ<br>FY 96<br>FY 96<br>FY 97<br>FY 97   | Diehl GMBH, Schramberg, GER<br>Diehl GMBH, Schramberg, GER<br>Diehl GMBH, Schramberg, GER<br>Diehl GMBH, Schramberg, GER | SS/FP<br>OPT<br>OPT<br>SS/FP | IOC<br>IOC<br>IOC<br>TACOM | Jul-96<br>Sep-96<br>Feb-97<br>Aug-97                                    | Jan-97<br>Mar-97<br>Sep-97<br>Jun-98 | 23978<br>30181<br>24245<br>4438 | 124<br>124<br>127<br>127 | Yes<br>Yes<br>Yes<br>Yes | N/A<br>N/A<br>N/A<br>N/A |                |
| 6. FIN M27<br>FY 96<br>FY 97   | Wilkinson Mfg Co., Ft. Calhoun, NE<br>Wilkinson Mfg Co., Ft. Calhoun, NE   | C/FP<br>C/FP                 | IOC<br>TACOM               | Sep-96<br>Jun-97  | Mar-97<br>Apr-98                     | 54159<br>28683                  | 5<br>6                   | Yes<br>Yes               | N/A<br>N/A               |                |
| <b>REMARKS:</b> Pine Bluff Arsenal is a government owned - government operated (GOGO) facility. Work is performed through work orders, not contracts.<br>Sole source to Diehl due to expertise and non-availability of a U.S. produced mortar time fuze. |  |                              |                            |   |                                      |                                 |                          |                          |                          |                |







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 9MM, ALL TYPES (EA3000)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 49.5        | 1.6     | 4.6     | 1.0     | 4.1     | 1.9     | 2.7     | 2.8     | 2.8     | 2.8     | 0.0         | 73.8       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 49.5        | 1.6     | 4.6     | 1.0     | 4.1     | 1.9     | 2.7     | 2.8     | 2.8     | 2.8     | 0.0         | 73.8       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 49.5        | 1.6     | 4.6     | 1.0     | 4.1     | 1.9     | 2.7     | 2.8     | 2.8     | 2.8     | 0.0         | 73.8       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes 9MM ALL TYPES.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |                | P-1 Line Item Nomenclature:<br>CTG, 9MM, ALL TYPES (EA3000) |              |                | Weapon System Type: |              |                | Date:<br>February 1998 |              |                |
|---|----------|--|--------------|----------------|---|--------------|----------------|---------------------|--------------|----------------|------------------------|--------------|----------------|
| Ammunition<br>Cost Elements               | ID<br>CD | FY 96  |              |                | FY 97   |              |                | FY 98               |              |                | FY 99                  |              |                |
|   |          | TotalCost<br>\$000   | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>x1000 | UnitCost<br>\$ |
| CTG 9MM BALL M882                         |          | 4580   | 30872        | 0.15           | 999   | 7684         | 0.13           | 4135                | 27444        | 0.15           | 1907                   | 12715        | 0.15           |
| <b>TOTAL</b>                              |          | <b>4580</b>  |              |                | <b>999</b>  |              |                | <b>4135</b>         |              |                | <b>1907</b>            |              |                |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 9MM BALL M882 (E05210)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 109757      | 9848    | 30872   | 7684    | 27444   | 12715   | 18450   | 18450   | 18450   | 18450   |             | 272120     |
| Gross Cost       | 15.6        | 1.6     | 4.6     | 1.0     | 4.1     | 1.9     | 2.7     | 2.8     | 2.8     | 2.8     | 0.0         | 39.9       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 15.6        | 1.6     | 4.6     | 1.0     | 4.1     | 1.9     | 2.7     | 2.8     | 2.8     | 2.8     | 0.0         | 39.9       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 15.6        | 1.6     | 4.6     | 1.0     | 4.1     | 1.9     | 2.7     | 2.8     | 2.8     | 2.8     | 0.0         | 39.9       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This round consists of a brass case, a jacketed lead bullet, a two-piece boxer-type primer, and a double base propellant. The cartridge 9mm, ball M882 conforms to all United States requirements and NATO standardization agreement (STANAG) 4090 for 9mm ammunition. Its primary usage is with the M9 personal defense weapon (PDW) and is compatible with all NATO 9mm weapons. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1985

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 9MM BALL M882 (E05210) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 3455         | 30872 | 0.11  | 756          | 7684  | 0.10                | 3395         | 27444 | 0.12                   | 1685         | 12715 | 0.13     |
| Box Metal M2A1                                    |  |  | 177          | 31    | 5.62  | 40           | 8     | 5.07                | 161          | 28    | 5.74                   | 72           | 13    | 5.57     |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 3632         |       |   | 796          |       |                     | 3556         |       |                        | 1757         |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 113          |       |   | 57           |       |                     | 378          |       |                        | 139          |       |          |
| Quality Assurance                                 |  |  | 5            |       |   | 1            |       |                     | 9            |       |                        | 2            |       |          |
| Acceptance Testing                                |  |  | 42           |       |   | 9            |       |                     | 41           |       |                        |              |       |          |
| Interim Transportation                            |  |  | 14           |       |   | 8            |       |                     | 26           |       |                        | 1            |       |          |
| Industrial Stock Support                          |  |  | 110          |       |   | 31           |       |                     | 125          |       |                        | 8            |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 664          |       |   | 97           |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 948          |       |   | 203          |       |                     | 579          |       |                        | 150          |       |          |
| <b>TOTAL</b>                                      |  |  | 4580         |       | 0.15  | 999          |       | 0.13                | 4135         |       | 0.15                   | 1907         |       | 0.15     |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 9MM BALL M882 (E05210)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location             | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------------------|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Olin Corp<br>East Alton, IL         | C/FP                     | IOC             | Jan-96     | Feb-96                 | 30872        | 0.11            | Yes              |                  |                |
| FY 97                              | Olin Corp<br>East Alton, IL         | C/FP                     | IOC             | May-97     | Jul-97                 | 7684         | 0.10            | Yes              |                  | Oct-96         |
| FY 98                              | TBS                                 | C/FP                     | IOC             | Mar-98     | Jul-98                 | 27444        | 0.12            | Yes              |                  | Oct-97         |
| FY 99                              | TBS                                 | C/FP                     | IOC             | Jan-99     | Jul-99                 | 12715        | 0.13            | Yes              |                  | Oct-98         |
| Box Metal M2A1<br>FY 96            | Brockway Standard<br>Homerville, GA | C/FP                     | IOC             | Jul-95     | Jan-96                 | 31           | 5.62            | Yes              |                  |                |
| FY 97                              | Brockway Standard<br>Homerville, GA | C/FP                     | IOC             | Mar-96     | Jun-97                 | 8            | 5.07            | Yes              |                  | Oct-96         |
| FY 98                              | TBS                                 | C/FP                     | IOC             | Feb-98     | Jun-98                 | 28           | 5.74            | Yes              |                  | Oct-97         |
| FY 99                              | TBS                                 | C/FP                     | IOC             | Jan-99     | Jun-99                 | 13           | 5.57            | Yes              |                  | Oct-98         |

REMARKS: TBS - To Be Selected











| Exhibit P-40, Budget Item Justification Sheet   |             |         |         |            |                                 |   |         |         |         |         | Date:<br>February 1998 |            |
|---|-------------|---------|---------|------------|---------------------------------|---|---------|---------|---------|---------|------------------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |            |                                 | P-1 Item Nomenclature:<br>FUZE ARTY ELECT TIME M767/M767A1 (E53500) |         |         |         |         |                        |            |
| Program Elements for Code B Items:  |             |         |         | Code:<br>A | Other Related Program Elements: |   |         |         |         |         |                        |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998                         | FY 1999   | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete            | Total Prog |
| Proc Qty  | 321         |         |         |            | 62                              |   |         |         |         |         |                        | 383        |
| Gross Cost  | 41.5        | 0.0     | 0.0     | 0.3        | 14.7                            | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 56.5       |
| Less PY Adv Proc  |             |         |         |            |                                 |   |         |         |         |         |                        |            |
| Plus CY Adv Proc  |             |         |         |            |                                 |   |         |         |         |         |                        |            |
| Net Proc (P-1)  | 41.5        | 0.0     | 0.0     | 0.3        | 14.7                            | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 56.5       |
| Initial Spares  |             |         |         |            |                                 |   |         |         |         |         |                        |            |
| Total Proc Cost   | 41.5        | 0.0     | 0.0     | 0.3        | 14.7                            | 0.0   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 56.5       |
| Flyaway U/C   |             |         |         |            |                                 |   |         |         |         |         |                        |            |
| Wpn Sys Proc U/C  |             |         |         |            |                                 |   |         |         |         |         |                        |            |
| <p><b>DESCRIPTION:</b><br/>           The M767/M767A1 Electronic Time (ET) Fuze is a boosted version of the M762 Electronic Time (ET) Fuze. The M767 ET Fuze is a second generation design that has dual setting capability: (1) Hand set without need for any external setting device and (2) An automatic set for higher rates of fire. Automatic set will support development testing of the Advanced Field Artillery System (AFAS) and be available for use by AFAS when fielded. The Fuze will be used with all existing and developmental high explosive (HE) and bursting projectiles in the 105mm, 155mm and 8-Inch artillery weapon systems and will also comply with Rationalization, Standardization and Interoperability (RSI) agreements for artillery weapon systems. The fuze utilizes a quartz crystal for its time base providing greater accuracy without increased cost. Employment of the M767 ET Fuze will result in fewer setting errors over the M582 Mechanical Time Super-Quick (MTSQ) that it replaces because of faster, easier setting methods. The M767 ET is also considerably more accurate than the MTSQ, especially over extended ranges. The M767 Materiel Change will update the electronics package and will reduce the cost associated with key manufacturing processes. Since the M767 and M762 Fuzes are produced on the same production line, the procurement of the M767 will accelerate the achievement of a unit cost reduction for the entire ET fuze family. This item is code A, approved for service use. This item has not transitioned to the SMCA and will be produced as actual cost.</p> <p><b>JUSTIFICATION:</b><br/>           Procurement continues to support testing, training and war reserve requirements of the family of Improved Conventional Munitions (ICM). The M767 is will replace the Mechanical Time Fuzes which have been phased out in FY 1990.</p> <p>Type Classification Date: TC STD September 1988</p> |             |         |         |            |                                 |   |         |         |         |         |                        |            |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, .45 CAL, ALL TYPES (ER8110)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 56.6        | 0.0     | 0.0     | 0.0     | 0.1     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 56.7       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 56.6        | 0.0     | 0.0     | 0.0     | 0.1     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 56.7       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 56.6        | 0.0     | 0.0     | 0.0     | 0.1     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 56.7       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes .45 CAL ALL TYPES.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |             |                   | P-1 Line Item Nomenclature:<br>CTG, .45 CAL, ALL TYPES (ER8110) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|--|-------------|-------------------|---|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| Ammunition<br>Cost Elements               | ID<br>CD | FY 96  |             |                   | FY 97   |             |                   | FY 98               |             |                   | FY 99                  |             |                   |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| CTG CAL .45 MATCH GRADE                   |          |  |             |                   |   |             | 72                | 363                 | 0.20        |                   | 2                      |             |                   |
| <b>TOTAL</b>                              |          |  |             |                   |   |             | <b>72</b>         |                     |             |                   | <b>2</b>               |             |                   |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, .50 CAL, ALL TYPES (E08000)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 383.1       | 0.0     | 26.5    | 4.9     | 19.7    | 18.5    | 18.8    | 20.9    | 22.7    | 25.4    | 0.0         | 540.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 383.1       | 0.0     | 26.5    | 4.9     | 19.7    | 18.5    | 18.8    | 20.9    | 22.7    | 25.4    | 0.0         | 540.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 383.1       | 0.0     | 26.5    | 4.9     | 19.7    | 18.5    | 18.8    | 20.9    | 22.7    | 25.4    | 0.0         | 540.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes .50 CAL ALL TYPES.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |                    |              | P-1 Line Item Nomenclature:<br>CTG, .50 CAL, ALL TYPES (E08000) |                    |              | Weapon System Type: |                    |              | Date:<br>February 1998 |                    |              |                |
|---|--|--|--------------------|--------------|---|--------------------|--------------|---------------------|--------------------|--------------|------------------------|--------------------|--------------|----------------|
| Ammunition<br>Cost Elements               |  | ID<br>CD   | FY 96              |              |   | FY 97              |              |                     | FY 98              |              |                        | FY 99              |              |                |
|   |  |  | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$  | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$      | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$         | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$ |
| CTG CAL .50 BALL M33 W/M9 LINK            |  |  |                    |              |   |                    |              | 929                 | 489                | 1.90         | 3694                   | 2649               | 1.39         |                |
| CTG CAL .50 4 BALL/1 TRACER W/M9 LINK     |  |  | 24479              | 8298         | 2.68  | 4947               | 2070         | 2.39                | 15766              | 7539         | 2.09                   | 14850              | 9325         | 1.59           |
| CTG CAL .50 SLAPT M903 (M962 TRACER)      |  |  | 2019               | 194          | 10.40   |                    |              |                     | 3029               | 329          | 9.21                   |                    |              |                |
| <b>TOTAL</b>                              |  |  | 26498              |              |   | 4947               |              |                     | 19724              |              |                        | 18544              |              |                |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG CAL .50 BALL M33 W/M9 LINK (E07100)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 34081       |         |         |         | 489     | 2649    | 2597    | 2568    | 2596    | 2594    |             | 47574      |
| Gross Cost       | 43.8        | 0.0     | 0.0     | 0.0     | 0.9     | 3.7     | 3.7     | 3.7     | 3.7     | 3.8     | 0.0         | 63.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 43.8        | 0.0     | 0.0     | 0.0     | 0.9     | 3.7     | 3.7     | 3.7     | 3.7     | 3.8     | 0.0         | 63.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 43.8        | 0.0     | 0.0     | 0.0     | 0.9     | 3.7     | 3.7     | 3.7     | 3.7     | 3.8     | 0.0         | 63.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The caliber .50 ball M33 is linked with the M9 links for use in Army training with caliber .50 machine guns, M2 and M3. These rounds are also used in function test firing of the M2 and M3 machine guns. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1951



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG CAL .50 BALL M33 W/M9 LINK (E07100) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  |              |       |  |              |       |                     | 630          | 489   | 1.29                   | 3363         | 2649  | 1.27     |
| Box Metal M2A1                                    |  |  |              |       |  |              |       |                     | 29           | 5     | 5.74                   | 150          | 27    | 5.57     |
| Link M9   |  |  |              |       |  |              |       |                     | 33           | 494   | 0.07                   |              |       |          |
| Propellant WC860 (LB)                             |  |  |              |       |  |              |       |                     | 110          | 17    | 6.55                   |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |  |              |       |                     | 802          |       |                        | 3513         |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  |              |       |  |              |       |                     | 82           |       |                        | 105          |       |          |
| Quality Assurance                                 |  |  |              |       |  |              |       |                     | 2            |       |                        | 3            |       |          |
| Acceptance Testing                                |  |  |              |       |  |              |       |                     | 9            |       |                        |              |       |          |
| Interim Transportation                            |  |  |              |       |  |              |       |                     | 6            |       |                        | 2            |       |          |
| Industrial Stock Support                          |  |  |              |       |  |              |       |                     | 28           |       |                        | 71           |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |  |              |       |                     | 127          |       |                        | 181          |       |          |
| <b>TOTAL</b>                                      |  |  |              |       |  |              |       |                     | 929          |       | 1.90                   | 3694         |       | 1.39     |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG CAL .50 BALL M33 W/M9 LINK (E07100)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 94   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-93     | Oct-94                 | 6523      | 1.05         |                  |                  |                |
| FY 98                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Dec-97     | Jun-98                 | 489       | 1.29         | Yes              |                  | Oct-97         |
| FY 99                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 2649      | 1.27         | Yes              |                  | Oct-98         |
| Box Metal M2A1<br>FY 94            | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Jan-94     | Jul-94                 | 67        | 5.68         |                  |                  |                |
| FY 98                              | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Dec-97     | Mar-98                 | 5         | 5.74         | Yes              |                  | Oct-97         |
| FY 99                              | TBS   | C/FP                     | IOC             | Jan-99     | Jul-99                 | 27        | 5.57         | Yes              |                  | Oct-98         |
| Link M9<br>FY 94                   | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Jan-94     | Jul-94                 | 6653      | 0.07         |                  |                  |                |
| FY 98                              | Valentec Wells<br>Costa Mesa, CA              | C/FP                     | IOC             | Jan-98     | May-98                 | 494       | 0.07         | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **CTG CAL .50 BALL M33 W/M9 LINK (E07100)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location    | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|----------------------------|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Propellant WC860 (LB)<br>FY 94     | Olin Corp<br>St. Marks, FL | SS/FP                    | IOC             | Aug-94     | Sep-94                 | 18           | 5.98            |                  |                  |                |
| FY 98                              | Olin Corp<br>St. Marks, FL | SS/FP                    | IOC             | Jan-98     | May-98                 | 17           | 6.55            | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured             | NA                       | NA              | NA         | NA                     | NA           | NA              | NA               |                  | NA             |

REMARKS:





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 379168      |         | 8298    | 2070    | 7539    | 9325    | 9281    | 9281    | 9281    | 9281    |             | 443524     |
| Gross Cost       | 258.4       | 0.0     | 24.5    | 4.9     | 15.8    | 14.9    | 15.1    | 15.1    | 15.3    | 15.5    | 0.0         | 379.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 258.4       | 0.0     | 24.5    | 4.9     | 15.8    | 14.9    | 15.1    | 15.1    | 15.3    | 15.5    | 0.0         | 379.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 258.4       | 0.0     | 24.5    | 4.9     | 15.8    | 14.9    | 15.1    | 15.1    | 15.3    | 15.5    | 0.0         | 379.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This item consists of M33 ball and M17 tracer linked 4 to 1 with the M9 link. These cartridges in the linked configuration are for training use in either vehicle mounted or ground mounted machine guns. The tracer round permits observation of the bullet's trajectory to the point of impact. The ammunition is designed for use in the M2 or M3 machine guns. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1968

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG CAL .50 4 BALL/1 TRACER W/M9 LINK<br>(E07200) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 15450        | 8011  | 1.93   | 3380         | 2070  | 1.63                | 10510        | 7539  | 1.39                   | 12887        | 9325  | 1.38     |
| Box Metal M2A1                                    |  |  | 459          | 82    | 5.62   | 107          | 21    | 5.07                | 441          | 77    | 5.74                   | 529          | 95    | 5.57     |
| Link M9   |  |  | 521          | 8083  | 0.06   | 118          | 2088  | 0.06                | 502          | 7606  | 0.07                   |              |       |          |
| Propellant WC860 (LB)                             |  |  | 1473         | 227   | 6.50   | 341          | 59    | 5.83                | 1359         | 207   | 6.56                   |              |       |          |
| Prop IMR 5010 (LB)                                |  |  | 813          | 54    | 15.15  | 246          | 14    | 17.74               | 793          | 54    | 14.61                  | 960          | 67    | 14.29    |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 18716        |       |  | 4192         |       |                     | 13605        |       |                        | 14376        |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 547          |       |  | 173          |       |                     | 1390         |       |                        | 160          |       |          |
| Quality Assurance                                 |  |  | 26           |       |  | 6            |       |                     | 34           |       |                        | 4            |       |          |
| Acceptance Testing                                |  |  | 215          |       |  | 46           |       |                     | 156          |       |                        |              |       |          |
| Interim Transportation                            |  |  | 71           |       |  | 40           |       |                     | 98           |       |                        | 22           |       |          |
| Industrial Stock Support                          |  |  | 797          |       |  |              |       |                     | 483          |       |                        | 288          |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 3421         |       |  | 490          |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 5077         |       |  | 755          |       |                     | 2161         |       |                        | 474          |       |          |
| <b>TOTAL</b>                                      |  |  | 23793        |       | 2.97   | 4947         |       | 2.39                | 15766        |       | 2.09                   | 14850        |       | 1.59     |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG CAL .50 4 BALL/1 TRACER W/M9 LINK<br>(E07200) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| AMMUNITION HARDWARE                               |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 469          | 287   | 1.63   |              |       |                     |              |       |                        |              |       |          |
| Box Metal M2A1                                    |  |  | 15           | 3     | 5.07   |              |       |                     |              |       |                        |              |       |          |
| Link M9   |  |  | 16           | 290   | 0.06   |              |       |                     |              |       |                        |              |       |          |
| Propellant WC860 (LB)                             |  |  | 47           | 8     | 5.83   |              |       |                     |              |       |                        |              |       |          |
| Prop IMR 5010 (LB)                                |  |  | 34           | 2     | 17.74  |              |       |                     |              |       |                        |              |       |          |
| SubTotal AMMO Hardware                            |  |  | 581          |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Support Costs                          |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 24           |       |  |              |       |                     |              |       |                        |              |       |          |
| Quality Assurance                                 |  |  | 1            |       |  |              |       |                     |              |       |                        |              |       |          |
| Acceptance Testing                                |  |  | 6            |       |  |              |       |                     |              |       |                        |              |       |          |
| Interim Transportation                            |  |  | 6            |       |  |              |       |                     |              |       |                        |              |       |          |
| Industrial Stock Support                          |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 68           |       |  |              |       |                     |              |       |                        |              |       |          |
| SubTotal Prod. Support                            |  |  | 105          |       |  |              |       |                     |              |       |                        |              |       |          |
| TOTAL   |  |  | 686          |       | 2.39   |              |       |                     |              |       |                        |              |       |          |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-96     | Oct-96                 | 8011         | 1.93            |                  |                  |                |
| FY 96                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Mar-97     | Oct-97                 | 287          | 1.63            |                  |                  |                |
| FY 97                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Jan-97     | Oct-97                 | 2070         | 1.63            | Yes              |                  | Oct-96         |
| FY 98                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Dec-97     | Apr-98                 | 7539         | 1.39            | Yes              |                  | Oct-97         |
| FY 99                              | Olin Corp (Lake City AAP)<br>Independence, MO | SS/CPAF                  | IOC             | Nov-98     | Oct-99                 | 9325         | 1.38            | Yes              |                  | Oct-98         |
| Box Metal M2A1<br>FY 96            | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Jun-96     | Sep-96                 | 82           | 5.62            |                  |                  |                |
| FY 96                              | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Apr-97     | Sep-97                 | 3            | 5.07            |                  |                  |                |
| FY 97                              | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | May-97     | Sep-97                 | 21           | 5.07            | Yes              |                  | Feb-97         |
| FY 98                              | Brockway Standard<br>Homerville, GA           | C/FP                     | IOC             | Dec-97     | Mar-98                 | 77           | 5.74            | Yes              |                  | Oct-97         |
| FY 99                              | TBS   | C/FP                     | IOC             | Jan-99     | Jul-99                 | 95           | 5.57            | Yes              |                  | Oct-98         |

REMARKS: TBS - To Be Selected

| Exhibit P-5a, Budget Procurement History and Planning                                    |                                  |                          |                 |            |                        |           |              |                  |                  | Date:   |
|--|----------------------------------|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|---|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |                                  |                          |                 |            |                        |           |              |                  |                  | February 1998   |
| Weapon System Type:  |                                  |                          |                 |            |                        |           |              |                  |                  | P-1 Line Item Nomenclature:<br>CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200) |
| WBS Cost Elements:   | Contractor and Location          | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date  |
| Link M9  |                                  |                          |                 |            |                        |           |              |                  |                  |   |
| FY 96  | Valentec Wells<br>Costa Mesa, CA | C/FP                     | IOC             | Jun-96     | Sep-96                 | 8083      | 0.06         |                  |                  |   |
| FY 96  | Valentec Wells<br>Costa Mesa, CA | C/FP                     | IOC             | Apr-97     | Jul-97                 | 290       | 0.06         |                  |                  |   |
| FY 97  | Valentec Wells<br>Costa Mesa, CA | C/FP                     | IOC             | Feb-97     | Aug-97                 | 2088      | 0.06         | Yes              |                  | Oct-96  |
| FY 98  | Valentec Wells<br>Costa Mesa, CA | C/FP                     | IOC             | Jan-98     | Mar-98                 | 7606      | 0.07         | Yes              |                  | Oct-97  |
| FY 99  | Plant Procured                   | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A   |
| Propellant WC860 (LB)  |                                  |                          |                 |            |                        |           |              |                  |                  |   |
| FY 96  | Olin Corp<br>St. Marks, FL       | SS/FP                    | IOC             | Apr-96     | Jun-96                 | 227       | 6.50         |                  |                  |   |
| FY 96  | Olin Corp<br>St. Marks, FL       | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 8         | 5.83         |                  |                  |   |
| FY 97  | Olin Corp<br>St. Marks, FL       | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 59        | 5.83         | Yes              |                  | May-97  |
| FY 98  | Olin Corp<br>St. Marks, FL       | SS/FP                    | IOC             | Jan-98     | Mar-98                 | 207       | 6.55         | Yes              |                  | Oct-97  |
| FY 99  | Plant Procured                   | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A   |
| REMARKS:   |                                  |                          |                 |            |                        |           |              |                  |                  |   |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **CTG CAL .50 4 BALL/1 TRACER W/M9 LINK (E07200)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Prop IMR 5010 (LB)<br>FY 96        | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Sep-96     | Sep-96                 | 54           | 15.15           |                  |                  |                |
| FY 96                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 2            | 17.74           |                  |                  |                |
| FY 97                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Aug-97     | Sep-97                 | 14           | 17.74           | Yes              |                  | May-97         |
| FY 98                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Jan-98     | Mar-98                 | 54           | 14.61           | Yes              |                  | Oct-97         |
| FY 99                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Aug-99     | Sep-99                 | 67           | 14.29           | Yes              |                  | Oct-98         |

REMARKS:





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG CAL .50 SLAPT M903 (M962 TRACER) (F88000)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 605         |         | 194     |         |         |         |         |         |         | 250     |             | 1049       |
| Gross Cost       | 5.0         | 0.0     | 2.0     | 3.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.3     | 0.0         | 12.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 5.0         | 0.0     | 2.0     | 3.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.3     | 0.0         | 12.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 5.0         | 0.0     | 2.0     | 3.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 2.3     | 0.0         | 12.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The Caliber, Saboted Light Armor Penetrator (SLAP), M903 cartridge consists of a heavy metal penetrator which is sabot launched at a much higher velocity than standard rounds, with Tracer, M962. The sabot, which is designed to break up at the muzzle to release the penetrator, must also survive the gun environment until launch. It is injection molded of special high strength plastic and is reinforced with an aluminum insert in the base section. The tungsten alloy penetrator has a slot in the base to insure full spin-up before separation from the sabot at the muzzle. The companion tracer cartridge, M962, consists of a tungsten alloy penetrator of the same mass as the M903 and is launched from a sabot of the same material and similar design. The penetrator base is cored out to accommodate a trace mix composition. This ammunition is linked four M903 SLAP to one M962 tracer for use in the M2 Heavy Barrel Machine Gun. The item is code A, approved for service use. The item has not transitioned to the SMCA and will be procured at actual cost.

**JUSTIFICATION:**

Procurements are intended for use against current and future light armored targets and Armored Attack Helicopters (AAHs). The M903 offers the capability to defeat these targets at ranges 2 to 3 times that of currently available ammunition.

Type Classified (TC) Date: March 1993.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG CAL .50 SLAPT M903 (M962 TRACER)<br>(F88000) |              |       | Weapon System Type:<br>M2 Heavy Barrel Machine Gun |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|---|--------------|-------|--|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |  | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$   | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |  |              |       |                        |              |       |          |
| 1. COMPLETE ROUND                                 |  | A  | 1486         | 194   | 7.66  | 2537         | 329   | 7.71   |              |       |                        |              |       |          |
| 2. M2A1 METAL BOX                                 |  |  | 12           | 2     | 6.19  | 24           | 3     | 6.92   |              |       |                        |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>1498</b>  |       |   | <b>2561</b>  |       |  |              |       |                        |              |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |  |              |       |                        |              |       |          |
| 1. Production Engineering                         |  |  | 238          |       |   | 244          |       |  |              |       |                        |              |       |          |
| 2. Quality Assurance                              |  |  | 90           |       |   | 90           |       |  |              |       |                        |              |       |          |
| 3. Acceptance Testing                             |  |  | 110          |       |   | 110          |       |  |              |       |                        |              |       |          |
| 4. Interim Transportation                         |  |  | 6            |       |   | 24           |       |  |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>444</b>   |       |   | <b>468</b>   |       |  |              |       |                        |              |       |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |   |              |       |  |              |       |                        |              |       |          |
| 1. ENGINEERING CHANGE                             |  |  | 77           |       |   |              |       |  |              |       |                        |              |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  | <b>77</b>    |       |   |              |       |  |              |       |                        |              |       |          |
| <b>TOTAL</b>                                      |  |  | <b>2019</b>  |       | <b>10.40</b>  | <b>3029</b>  |       | <b>9.21</b>  |              |       |                        |              |       |          |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**  
 Weapon System Type: **M2 Heavy Barrel Machine Gun**  
 P-1 Line Item Nomenclature: **CTG CAL .50 SLAPT M903 (M962 TRACER) (F88000)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location      | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|------------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| <b>1. COMPLETE ROUND</b>           |                              |                          |                 |            |                        |          |              |                  |                  |                |
| FY 96                              | OLIN, ILL                    | SS/FP                    | TACOM-ARDEC     | Apr-96     | Jun-96                 | 80600    | 8.07         |                  |                  | Jan-96         |
| FY 96                              | OLIN, ILL                    | MOD                      | TACOM-ARDEC     | Jan-97     | Jan-98                 | 113400   | 7.37         |                  |                  | Sep-96         |
| FY 97                              | OLIN, ILL                    | OPT                      | TACOM-ARDEC     | Nov-97     | Feb-98                 | 329000   | 7.71         | YES              |                  | N/A            |
| <b>2. M2A1 METAL BOX</b>           |                              |                          |                 |            |                        |          |              |                  |                  |                |
| FY 96                              | Brockway Std, Homerville, GA | OPT                      | IOC             | Mar-96     | May-96                 | 1940     | 6.19         |                  |                  |                |
| FY 97                              | Brockway Std, Homerville, GA | OPT                      | IOC             | Nov-97     | Feb-98                 | 3469     | 6.92         | YES              |                  |                |

REMARKS:



| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |        |      |               |                       |                     | P-1 Item Nomenclature: CTG CAL .50 SLAPT M903 (M962 TRACER) (F88000) |     |     |     |     |     |     |     |     |     |     |     |                  |     | Date: February 1998 |     |     |     |       |     |
|---------------------------------------|-----|--------|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|-----|---------------------|-----|-----|-----|-------|-----|
| COST ELEMENTS                         | MFR | FY     | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 97   |     |     |     |     |     |     |     |     |     |     |     | Fiscal Year 98   |     |                     |     |     |     | LATER |     |
|                                       |     |        |      |               |                       |                     | Calendar Year 97   |     |     |     |     |     |     |     |     |     |     |     | Calendar Year 98 |     |                     |     |     |     |       |     |
|                                       |     |        |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV | DEC                 | JAN | FEB | MAR |       | APR |
| 1. COMPLETE ROUND                     |     |        |      |               |                       |                     |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |       |     |
|                                       | 1   | FY 96  | A    | 194           | 81                    | 113                 |  |     |     |     |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |       |     |
|                                       | 1   | FY 97  | A    | 329           | 0                     | 329                 |  |     |     |     |     |     |     |     |     |     | A   |     |                  | 99  | 115                 | 115 |     |     |       |     |
| 1. COMPLETE ROUND                     | 1   | FY95&P | MC   | 700           | 461                   | 239                 | 110  | 110 | 16  | 3   |     |     |     |     |     |     |     |     |                  |     |                     |     |     |     |       |     |

  

| 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   | Olin, East Alton, IL | 60               | 220   | 440  |             | 1          | INITIAL         | 4            | 6                | 13                 | 19      |  |
|     |                      |                  |       |      |             |            | REORDER         | 4            | 6                | 7                  | 13      |  |
|     |                      |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |      |             |            | REORDER         |              |                  |                    |         |  |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 60MM SMOKE WP M722 (E70500)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 164         |         |         |         | 23      |         |         |         |         |         |             | 187        |
| Gross Cost       | 21.0        | 0.0     | 0.0     | 0.0     | 4.6     | 0.4     | 0.3     | 0.0     | 0.0     | 0.0     | 0.0         | 26.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 21.0        | 0.0     | 0.0     | 0.0     | 4.6     | 0.4     | 0.3     | 0.0     | 0.0     | 0.0     | 0.0         | 26.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 21.0        | 0.0     | 0.0     | 0.0     | 4.6     | 0.4     | 0.3     | 0.0     | 0.0     | 0.0     | 0.0         | 26.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M722, 60MM WP Smoke Cartridge is used on the M224 Lightweight Company Mortar System (LWCMS). It provides a smoke cloud for spotting or marking a target area. The M722 is assembled with the M745 Point Detonating Fuze which functions on impact. The cartridge has an integral burster charge, white phosphorous filler, a thin wall shell, fin assembly, a four increment M204 propelling charge, and ignition cartridge. The operating range is from 70 to 3,490 meters. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

The need for a LWCMS resulted from an operational requirement for a lightweight mortar to enhance the firepower and mobility of small infantry units, and to increase the combat effectiveness of these units in scenarios where manportability is essential. The requirements established a need to retain most of the capabilities of the standard 81MM Mortar, but with greatly reduced weight, and improved portability and ease of handling. Procurement builds a war reserve inventory in accordance with the Army's procurement goals. FY 99 dollars fund annualized support cost.

**TYPE CLASSIFICATION DATE:**

September 1991

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM SMOKE WP M722<br>(E70500) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$   | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Load, Assemble and Pack                           |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Proj MPTS   |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| M27 Fin Assembly                                  |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| LAP Chg Prop M204                                 |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Container Assy M204                               |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Nitrocellulose WW GR A (LB)                       |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| M702 Ignition Cartridge                           |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| M9 Flake .006 F/60MM (LB)                         |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| M10 Flake .008 (LB)                               |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Det Stab M61                                      |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Det Stab M55                                      |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Fuze M745   |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Fz Mpts M745                                      |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| *Comp A-5 Class 1(LB)                             |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| PBXN-5 Type 1 Class 3 (LB)                        |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Production Engineering                            |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Quality Assurance                                 |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Acceptance Testing                                |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Interim Transportation                            |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Industrial Stock Support                          |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| *Government Furnished Material                    |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |   |                        |          |              |                  |                  | Date:          |
|--|---|--------------------------|-----------------|---|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |   |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:  |   |                          |                 | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM SMOKE WP M722 (E70500) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date  | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Load, Assemble and Pack<br>FY 98   | Pine Bluff Arsenal<br>Pine Bluff , AR         | SS/FP                    | IOC             | Feb-98  | Sep-99                 | 23000    | 83.53        | Yes              |                  | Oct-97         |
| Proj MPTS<br>FY 98   | TBS   | C/FP                     | IOC             | Apr-98  | May-99                 | 23920    | 15.12        | Yes              |                  | Oct-97         |
| Fin Assy M27<br>FY 98  | TBS   | C/FP                     | IOC             | Apr-98  | May-99                 | 23920    | 5.48         | Yes              |                  | Oct-97         |
| LAP Chg Prop M204<br>FY 98   | General Dynamics (Milan AAP)<br>Milan, TN     | SS/CPAF                  | IOC             | Mar-98  | Mar-99                 | 94300    | 0.96         | Yes              |                  | Oct-97         |
| Container Assy M204<br>FY 98   | ARMTEC Defense Prod<br>Coachella, CA          | SS/FP                    | IOC             | Apr-98  | Jan-99                 | 94300    | 1.75         | Yes              |                  | Oct-97         |
| Nitrocellulose WW GR A (LB)<br>FY 98   | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Apr-98  | Jul-98                 | 759      | 4.04         | Yes              |                  | Oct-97         |
| M720 Ignition Cartridge<br>FY 98   | General Dynamics (Milan AAP)<br>Milan, TN     | SS/CPAF                  | IOC             | Mar-98  | Mar-99                 | 23920    | 8.97         | Yes              |                  | Oct-97         |
| REMARKS: TBS - To be Selected  |   |                          |                 |   |                        |          |              |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |            |                        |          |              |                  |                  | Date:   |
|--|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|---|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |            |                        |          |              |                  |                  | February 1998   |
| Weapon System Type:  |   |                          |                 |            |                        |          |              |                  |                  | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM SMOKE WP M722 (E70500) |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                             | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date  |
| M9 Flake .006 (LB)<br>FY 98  | Alliant Tech Sys (Radford AAP)<br>Radford, VA       | SS/FP                    | IOC             | Apr-98     | Jul-98                 | 184      | 57.90        | Yes              |                  | Oct-97  |
| M10 Flake .008 (LB)<br>FY 98   | Alliant Tech Sys (Radford AAP)<br>Radford, VA       | C/FP                     | IOC             | Apr-98     | Jul-98                 | 1840     | 19.59        | Yes              |                  | Oct-97  |
| Det Stab M61<br>FY 98  | Day & Zimmerman<br>(Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Mar-98     | Dec-98                 | 24150    | 2.26         | Yes              |                  | Oct-97  |
| Det Stab M55<br>FY 98  | Day & Zimmerman<br>(Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Mar-98     | Dec-98                 | 23690    | 0.38         | Yes              |                  | Oct-97  |
| Fuze M745<br>FY 98   | General Dynamics (Milan AAP)<br>Milan, TN           | SS/CPAF                  | IOC             | Mar-98     | Jul-99                 | 23690    | 2.16         | Yes              |                  | Oct-97  |
| Fz Mpts M745 **<br>FY 98   | TBS   | C/FP                     | IOC             | Apr-98     | Apr-99                 | 23920    | 39.44        | Yes              |                  | Oct-97  |
| REMARKS: **Pacing Component<br>TBS - To Be Selected                                      |   |                          |                 |            |                        |          |              |                  |                  |   |

| Exhibit P-5a, Budget Procurement History and Planning                                    |  |                          |                 |            |                        |          |   |                  |                  | Date:          |  |
|--|--|--------------------------|-----------------|------------|------------------------|----------|---|------------------|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |  |                          |                 |            | Weapon System Type:    |          | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM SMOKE WP M722 (E70500) |                  |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$  | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |  |
| *COMP A-5, Class 1 (LB)<br>FY 98   | Stock Issue                                    | N/A                      | N/A             | N/A        | N/A                    | 196      | N/A   | N/A              |                  | N/A            |  |
| PBXN-5 Type 1, Class 3 (LB)<br>FY 98   | Holston Defense (Holston AAP)<br>Kingsport, TN | SS/CPFF                  | IOC             | Mar-98     | Sep-98                 | 7        | 83.04   | Yes              |                  | Oct-97         |  |
| REMARKS: *Government Furnished Material  |  |                          |                 |            |                        |          |   |                  |                  |                |  |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG CAL .50 API MK211 MOD 0 (F47400)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 234     | 329     | 286     |         |         |         |         |         |             | 849        |
| Gross Cost       | 0.0         | 0.0     | 1.9     | 2.0     | 1.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 5.9        |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 1.9     | 2.0     | 1.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 5.9        |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 1.9     | 2.0     | 1.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 5.9        |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The Grade B MK211 will be linked in a 4:1 ratio with the caliber .50 M20 Armor Piercing Incendiary Tracer cartridge for use in the M2 machine gun. The cartridge provides improved penetration performance against light armor vehicles and personnel. The projectile consists of a brass jacket surrounding a steel body and tungsten core with incendiary and high explosive charges.

**JUSTIFICATION:**

This is a war reserve item, used in combat. Procurements are building toward the war reserve requirement.

**TYPE CLASSIFICATION DATE:**

9 February 1996



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG CAL .50 API MK211 MOD 0 (F47400) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  | 1450         | 234   | 6.20  | 126          | 329   | 0.38                | 125          | 286   | 0.44                   |              |       |          |
| Ctg Cal .50 MK 211 API Grade B                    |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 1457         | 263   | 5.54                | 1446         | 229   | 6.32                   |              |       |          |
| Ctg .50 Cal API-T M20                             |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 118          | 66    | 1.79                | 117          | 57    | 2.04                   |              |       |          |
| Box Metal M2A1                                    |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 17           | 3     | 5.03                | 17           | 3     | 5.74                   |              |       |          |
| Link M9   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 19           | 332   | 0.06                | 19           | 289   | 0.07                   |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 1450         |       |   | 1737         |       |                     | 1724         |       |                        |              |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  | 444          |       |   |              |       |                     | 128          |       |                        |              |       |          |
| Quality Assurance                                 |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 2            |       |                     | 4            |       |                        |              |       |          |
| Acceptance Testing                                |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 19           |       |                     | 20           |       |                        |              |       |          |
| Interim Transportation                            |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 16           |       |                     | 12           |       |                        |              |       |          |
| Industrial Stock Support                          |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 68           |       |                     | 61           |       |                        |              |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
|   |  |  |              |       |   | 203          |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 444          |       |   | 308          |       |                     | 225          |       |                        |              |       |          |
| <b>TOTAL</b>                                      |  |  | 1894         |       | 8.09  | 2045         |       | 6.22                | 1949         |       | 6.81                   |              |       |          |

| Exhibit P-5a, Budget Procurement History and Planning                                    |  |  |   |  |                          |                 |            |                        |          | Date:         |                  |                  |                |
|--|--|--|---|--|--------------------------|-----------------|------------|------------------------|----------|---------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |  |  |   |  |                          |                 |            |                        |          | February 1998 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   |  |  | Contractor and Location                       |  | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$  | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Load, Assemble and Pack<br>FY 96 (Complete Round)  |  |  | Olin Corp<br>East Alton, IL                   |  | C/FP                     | NAVY            | Jun-96     | Jul-96                 | 234000   | 6.20          |                  |                  |                |
| FY 97  |  |  | Olin Corp (Lake City AAP)<br>Independence, MO |  | SS/CPAF                  | IOC             | Sep-97     | Oct-98                 | 328773   | 0.38          | Yes              |                  | Oct-96         |
| FY 98  |  |  | Olin Corp (Lake City AAP)<br>Independence, MO |  | SS/CPAF                  | IOC             | Jan-98     | Apr-99                 | 286000   | 0.44          | Yes              |                  | Oct-97         |
| Ctg Cal .50 MK 211 API Grade B<br>FY 96  |  |  | Plant Procured                                |  | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A           | N/A              |                  | N/A            |
| FY 97  |  |  | Olin Corp (Lake City AAP)<br>Independence, MO |  | SS/CPAF                  | IOC             | Sep-97     | Oct-98                 | 263019   | 5.54          | Yes              |                  | Oct-96         |
| FY 98  |  |  | Olin Corp (Lake City AAP)<br>Independence, MO |  | SS/CPAF                  | IOC             | Jan-98     | Apr-99                 | 228800   | 6.32          | Yes              |                  | Oct-97         |
| Ctg .50 Cal API-T M20<br>FY 96   |  |  | Plant Procured                                |  | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A           | N/A              |                  | N/A            |
| FY 97  |  |  | Olin Corp (Lake City AAP)<br>Independence, MO |  | SS/CPAF                  | IOC             | Sep-97     | Oct-98                 | 65755    | 1.79          | Yes              |                  | Oct-96         |
| FY 98  |  |  | Olin Corp (Lake City AAP)<br>Independence, MO |  | SS/CPAF                  | IOC             | Jan-98     | Apr-99                 | 57200    | 2.04          | Yes              |                  | Oct-97         |
| Box Metal M2A1<br>FY 96  |  |  | Plant Procured                                |  | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A           | N/A              |                  | N/A            |
| FY 97  |  |  | Brockway Standard<br>Homerville, GA           |  | C/FP                     | IOC             | May-97     | Dec-97                 | 3354     | 5.03          | Yes              |                  | Oct-96         |
| FY 98  |  |  | TBS   |  | C/FP                     | IOC             | Mar-98     | Sep-98                 | 2918     | 5.74          | Yes              |                  | Oct-97         |
| REMARKS: TBS- To be Selected   |  |  |   |  |                          |                 |            |                        |          |               |                  |                  |                |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**  
 Weapon System Type:  
 P-1 Line Item Nomenclature: **CTG CAL .50 API MK211 MOD 0 (F47400)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
|------------------------------------|-------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|

|                           |   |             |            |               |               |               |             |            |  |               |
|---------------------------|---|-------------|------------|---------------|---------------|---------------|-------------|------------|--|---------------|
| Link M9<br>FY 96<br>FY 97 | Plant Procured<br>Valentec Wells<br>Costa Mesa, CA<br>TBS | N/A<br>C/FP | N/A<br>IOC | N/A<br>Jul-97 | N/A<br>Jan-98 | N/A<br>331732 | N/A<br>0.06 | N/A<br>Yes |  | N/A<br>Oct-96 |
| FY 98                     |   | C/FP        | IOC        | Mar-98        | Sep-98        | 288574        | 0.07        | Yes        |  | Oct-97        |
|                           |   |             |            |               |               |               |             |            |  |               |

REMARKS: TBS - To be Selected



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: BUNKER DEFEATING MUNITION (BDM) (E88400)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 0.0         | 7.0     | 14.6    | 10.0    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 39.4       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 7.0     | 14.6    | 10.0    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 39.4       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 7.0     | 14.6    | 10.0    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 39.4       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 This budget line includes Bunker Defeating Munition All Types

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |    | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |      |          | P-1 Line Item Nomenclature:<br>BUNKER DEFEATING MUNITION<br>(BDM) (E88400) |      |          | Weapon System Type: |      |          | Date:<br>February 1998 |      |          |
|---|----|--|------|----------|--|------|----------|---------------------|------|----------|------------------------|------|----------|
| Ammunition<br>Cost Elements               |    | FY 96  |      |          | FY 97  |      |          | FY 98               |      |          | FY 99                  |      |          |
| 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    |
| BUNKER DEFEATING MUNITION (TACTIC         |    | 14581  | 2215 | 7        | 9982   | 1242 | 8        | 7821                | 966  | 8        |                        |      |          |
| <b>TOTAL</b>                              |    | <b>14581</b>   |      |          | <b>9982</b>  |      |          | <b>7821</b>         |      |          |                        |      |          |

| Exhibit P-40, Budget Item Justification Sheet  |             |         |         |            |   |         |         |         |         | Date:<br>February 1998 |             |            |
|--|-------------|---------|---------|------------|---|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |            | P-1 Item Nomenclature:<br>BUNKER DEFEATING MUNITION (TACTICAL) (E88401) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:<br>64802  |             |         |         | Code:<br>B | Other Related Program Elements:   |         |         |         |         |                        |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998   | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty   |             | 1012    | 2215    | 1242       | 966   |         |         |         |         |                        |             | 5435       |
| Gross Cost   | 0.0         | 7.0     | 14.6    | 10.0       | 7.8   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 39.4       |
| Less PY Adv Proc   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Plus CY Adv Proc   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Net Proc (P-1)   | 0.0         | 7.0     | 14.6    | 10.0       | 7.8   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 39.4       |
| Initial Spares   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Total Proc Cost  | 0.0         | 7.0     | 14.6    | 10.0       | 7.8   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 39.4       |
| Flyaway U/C  |             |         |         |            |   |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C   |             |         |         |            |   |         |         |         |         |                        |             |            |
| <p><b>DESCRIPTION:</b></p> <p>The Bunker Defeat Munition Shoulder-Launched Multi-purpose Assault Weapon - Disposable (SMAW-D) is a stand-alone, single shot, disposable munition which is used to defeat earth and timber field fortifications (bunkers). It also defeats light armored vehicles and breaches masonry walls. The need for the BDM SMAW-D was identified during operations Urgent Fury, Just Cause and Desert Shield/Storm. Other systems available (M136, AT4 and the M72, LAW) are ineffective against bunkers. The BDM is light-weight (15.7 lbs.), man-portable and air deployable. The BDM will be used by contingency forces. This item is Code B, PE 64802, not approved for service use. This item has not transitioned to the SMCA and will be procured as actual cost.</p> <p><b>JUSTIFICATION:</b></p> <p>Procurement supports contingency forces only.</p> <p>Type Classified (TC) Generic August 1993 &amp; TC LP September 1994</p> |             |         |         |            |   |         |         |         |         |                        |             |            |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |              |      | P-1 Line Item Nomenclature:<br>BUNKER DEFEATING MUNITION<br>(TACTICAL) (E88401) |              |      | Weapon System Type:<br>Bunker Defeating Munition |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|--|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |  | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$  | \$000        | Each | \$   | \$000        | Each | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |   |              |      |  |              |      |                        |              |      |          |
| 1. COMPLETE ROUND                                 |  | B  | 12860        | 2215 | 5805.87   | 8203         | 1242 | 6604.67  | 6380         | 966  | 6604.56                |              |      |          |
| 2. FIELD HANDLING SYSTEM                          |  |  | 200          | 133  | 1503.76   | 198          | 54   | 3666.67  | 154          | 42   | 3666.67                |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>13060</b> |      |   | <b>8401</b>  |      |  | <b>6534</b>  |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |   |              |      |  |              |      |                        |              |      |          |
| 1. Production Engineering                         |  |  | 852          |      |   | 927          |      |  | 667          |      |                        |              |      |          |
| 2. Quality Assurance                              |  |  | 171          |      |   | 171          |      |  | 137          |      |                        |              |      |          |
| 3. Acceptance Testing                             |  |  | 448          |      |   | 448          |      |  | 448          |      |                        |              |      |          |
| 4. Interim Transportation                         |  |  | 50           |      |   | 35           |      |  | 35           |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>1521</b>  |      |   | <b>1581</b>  |      |  | <b>1287</b>  |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>14581</b> |      | <b>6582.84</b>  | <b>9982</b>  |      | <b>8037.04</b>                                   | <b>7821</b>  |      | <b>8097.31</b>         |              |      |          |



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

Date:  
February 1998

| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |                         | Weapon System Type:      |                 |            | P-1 Line Item Nomenclature:<br>BUNKER DEFEATING MUNITION (TACTICAL) (E88401) |          |              |                  |                  |                |
|--|-------------------------|--------------------------|-----------------|------------|--|----------|--------------|------------------|------------------|----------------|
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery   | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| <b>1. COMPLETE ROUND</b>   |                         |                          |                 |            |  |          |              |                  |                  |                |
| FY 96  | TALLEY, MESA, AZ        | SS/FP                    | TACOM-ARDEC     | Sep-96     | Nov-98   | 2215     | 5805.87      |                  |                  |                |
| FY 97  | TALLEY, MESA, AZ        | SS/FP                    | TACOM-ARDEC     | Aug-97     | Dec-99   | 1242     | 6604.67      |                  |                  |                |
| FY 98  | TALLEY, MESA, AZ        | Option                   | TACOM-ARDEC     | Feb-98     | Dec-00   | 966      | 6604.56      | Yes              | No               |                |
| <b>2. FIELD HANDLING SYSTEM</b>  |                         |                          |                 |            |  |          |              |                  |                  |                |
| FY 96  | TALLEY, MESA, AZ        | SS/FP                    | TACOM-ARDEC     | Sep-96     | Nov-98   | 133      | 1503.76      |                  |                  |                |
| FY 97  | TALLEY, MESA, AZ        | SS/FP                    | TACOM-ARDEC     | Aug-97     | Dec-99   | 54       | 3666.67      |                  |                  |                |
| FY 98  | TALLEY, MESA, AZ        | Option                   | TACOM-ARDEC     | Feb-98     | Dec-00   | 42       | 3666.67      | Yes              | No               |                |
| <b>REMARKS:</b>  |                         |                          |                 |            |  |          |              |                  |                  |                |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 20MM, ALL TYPES (E08900)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 294.1       | 1.2     | 0.0     | 0.3     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 295.6      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 294.1       | 1.2     | 0.0     | 0.3     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 295.6      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 294.1       | 1.2     | 0.0     | 0.3     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 295.6      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 This budget line includes 20MM ALL TYPES.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis     |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |           |      | P-1 Line Item Nomenclature:<br>CTG, 20MM, ALL TYPES (E08900) |            |      | Weapon System Type: |           |      | Date:<br>February 1998 |           |      |          |
|---|--|--|-----------|------|--|------------|------|---------------------|-----------|------|------------------------|-----------|------|----------|
| Ammunition<br>Cost Elements                   |  | ID   | FY 96     |      |  | FY 97      |      |                     | FY 98     |      |                        | FY 99     |      |          |
|   |  | CD   | TotalCost | Qty  | UnitCost   | TotalCost  | Qty  | UnitCost            | TotalCost | Qty  | UnitCost               | TotalCost | Qty  | UnitCost |
|   |  |  | \$000     | Each | \$000  | \$000      | Each | \$000               | \$000     | Each | \$000                  | \$000     | Each | \$000    |
| CTG 20MM LINKED TP M55A2/TPT M220 LINKED W/14 |  |  |           |      |  | 300        | 57   | 5.22                |           |      |                        |           |      |          |
| <b>TOTAL</b>                                  |  |  |           |      |  | <b>300</b> |      |                     |           |      |                        |           |      |          |

| Exhibit P-40, Budget Item Justification Sheet   |             |         |         |         |  |         |         |         |         | Date:<br>February 1998 |             |            |
|---|-------------|---------|---------|---------|--|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |         | P-1 Item Nomenclature:<br>CAD/PAD ALL TYPES (EA0003) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:  |             |         |         | Code:   | Other Related Program Elements:                      |         |         |         |         |                        |             |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998  | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Gross Cost  | 58.9        | 2.3     | 1.5     | 1.0     | 1.1  | 2.3     | 3.0     | 4.4     | 5.1     | 5.6                    | 0.0         | 85.2       |
| Less PY Adv Proc  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Plus CY Adv Proc  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Net Proc (P-1)  | 58.9        | 2.3     | 1.5     | 1.0     | 1.1  | 2.3     | 3.0     | 4.4     | 5.1     | 5.6                    | 0.0         | 85.2       |
| Initial Spares  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Total Proc Cost   | 58.9        | 2.3     | 1.5     | 1.0     | 1.1  | 2.3     | 3.0     | 4.4     | 5.1     | 5.6                    | 0.0         | 85.2       |
| Flyaway U/C   |             |         |         |         |  |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C  |             |         |         |         |  |         |         |         |         |                        |             |            |
| <p><b>DESCRIPTION:</b></p> <p>Cartridge Actuated Devices (CAD) and Propellant Actuated Devices (PAD) are used in various escape and jettison systems on all types of Army aircraft.</p> <p><b>JUSTIFICATION:</b></p> <p>Required to support aircraft escape and jettison systems and mission essential needs. Items are subject to shelf and service life restrictions and therefore require replacement at specified intervals. FY 99 procurement is required to assure availability of replacement items when needed and avoids grounding aircraft or rendering aircraft partially mission capable.</p> |             |         |         |         |  |         |         |         |         |                        |             |            |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 60MM HE M720A1 (E67303)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         | 47      | 39      | 43      | 43      | 22      | N/A         | 194        |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 1.4     | 0.0     | 20.5    | 16.2    | 14.9    | 15.1    | 8.7     | 0.0         | 76.9       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 1.4     | 0.0     | 20.5    | 16.2    | 14.9    | 15.1    | 8.7     | 0.0         | 76.9       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 1.4     | 0.0     | 20.5    | 16.2    | 14.9    | 15.1    | 8.7     | 0.0         | 76.9       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The round is used against personnel and materiel providing both fragmentation and blast effect. It consists of a multi-option fuze, tail assembly, and projectile body with a TNT or composition B explosive fill. A materiel change funded in FY97 should result in a change to the explosive fill by incorporation of an insensitive munition. The round uses a proximity fuze setting to burst at a height over the target which is optimized for lethality. The M720A1 version incorporates the more reliable and countermeasure resistant M734A1 Multi-option fuze. This item is code A: it has been approved for service use.

**JUSTIFICATION:**

The FY99 procurement builds a war reserve stockpile in support of fielded Mortar Weapons.

Type Classification date: M720 STD JAN86; M720A1 STD FEB98  
 Acquisition Manager: PM MORTARS

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM HE M720A1<br>(E67303) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |        |            |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|--------|------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |        |            |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty    | UnitCost   |
|   |  |  | \$000        | Each | \$   | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each   | \$         |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |        |            |
| 1. CTG, M720A1, LAP                               |  |  |              |      |  |              |      |                     |              |      |                        | 3234         | 46500  | 70         |
| 2. *SHELL BODY                                    |  |  |              |      |  |              |      |                     |              |      |                        | 253          | 24180  | 10         |
| 3. PROP CHG M235                                  |  |  |              |      |  |              |      |                     |              |      |                        | 972          | 190650 | 5          |
| 4. IGN CTG M702                                   |  |  |              |      |  |              |      |                     |              |      |                        | 639          | 48360  | 13         |
| 5. FUZE, M734A1 MO                                |  |  |              |      |  |              |      |                     |              |      |                        | 12886        | 48360  | 266        |
| 6. FIN M27  |  |  |              |      |  |              |      |                     |              |      |                        | 307          | 48360  | 6          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |  |              |      |                     |              |      |                        | <b>18291</b> |        |            |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |      |                     |              |      |                        |              |        |            |
| Production Engineering                            |  |  |              |      |  |              |      |                     |              |      |                        | 520          |        |            |
| Quality Assurance                                 |  |  |              |      |  |              |      |                     |              |      |                        | 118          |        |            |
| Acceptance Testing                                |  |  |              |      |  |              |      |                     |              |      |                        | 66           |        |            |
| Interim Transportation                            |  |  |              |      |  |              |      |                     |              |      |                        | 33           |        |            |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |  |              |      |                     |              |      |                        | <b>737</b>   |        |            |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |        |            |
| First Article                                     |  |  |              |      |  |              |      |                     |              |      |                        | 1500         |        |            |
| M720A1 Qualification Engr & Test                  |  |  | 1400         |      |  |              |      |                     |              |      |                        |              |        |            |
| *GFM  |  |  |              |      |  |              |      |                     |              |      |                        |              |        |            |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  | <b>1400</b>  |      |  |              |      |                     |              |      |                        | <b>1500</b>  |        |            |
| <b>TOTAL</b>                                      |  |  | <b>1400</b>  |      |  |              |      |                     |              |      |                        | <b>20528</b> |        | <b>442</b> |



| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |            |                        |          |              |                  |                  | Date:   |
|---|-------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|---|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition                  |                         |                          |                 |            |                        |          |              |                  |                  | February 1998   |
| Weapon System Type:   |                         |                          |                 |            |                        |          |              |                  |                  | P-1 Line Item Nomenclature:<br>CTG MORTAR 60MM HE M720A1 (E67303) |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date  |
| 1. CTG, M720A1, LAP<br>FY 99  | Unknown                 | C/FP                     | TACOM           | Mar-99     | Sep-00                 | 46500    | 70           | Yes              |                  | Oct-98  |
| 2. SHELL BODY<br>FY 99  | Unknown                 | C/FP                     | TACOM           | Mar-99     | Mar-00                 | 24180    | 10           | Yes              |                  | Oct-98  |
| 3. PROP CHG M235<br>FY 99   | Unknown                 | OPT                      | TACOM           | Jan-99     | Sep-99                 | 190650   | 5            | Yes              |                  | Jun-97  |
| 4. IGN CTG M702<br>FY 99  | Unknown                 | C/FP                     | TACOM           | Mar-99     | Dec-99                 | 48360    | 13           | Yes              |                  |   |
| 5. FUZE, M734A1 MO<br>FY 99   | Unknown                 | OPT                      | TACOM           | Jan-99     | Feb-00                 | 48360    | 266          | Yes              |                  | Feb-98  |
| 6. FIN M27<br>FY 99   | Unknown                 | C/FP                     | TACOM           | Mar-99     | Dec-99                 | 48360    | 6            | Yes              |                  | Oct-98  |
| REMARKS: 50% of the shell bodies will be taken from existing stocks, remainder will be a new procurement. |                         |                          |                 |            |                        |          |              |                  |                  |   |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ITEMS LESS THAN \$2 MILLION (EA0055)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 171.5       | 1.9     | 2.1     | 2.1     | 0.8     | 0.8     | 1.8     | 1.8     | 0.8     | 0.9     | 0.0         | 184.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 171.5       | 1.9     | 2.1     | 2.1     | 0.8     | 0.8     | 1.8     | 1.8     | 0.8     | 0.9     | 0.0         | 184.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 171.5       | 1.9     | 2.1     | 2.1     | 0.8     | 0.8     | 1.8     | 1.8     | 0.8     | 0.9     | 0.0         | 184.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes miscellaneous ammunition items less than \$2 million.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>ITEMS LESS THAN \$2 MILLION (EA0055) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$000   | \$000        | Each | \$000               | \$000        | Each | \$000                  | \$000        | Each | \$000    |
| CTG 12 GAUGE #9 SHOT                              |  |  |              |      |   | 542          |      |                     |              |      |                        |              |      |          |
| CTG 10 GAUGE BLANK                                |  |  | 29           | 49   | 0.59  |              |      |                     | 27           | 47   | 0.57                   | 34           | 18   | 1.89     |
| CTG CAL .22 LR MATCH F/PISTOL                     |  |  | 156          | 1200 | 0.13  |              |      |                     | 230          | 1810 | 0.13                   | 177          | 1340 | 0.13     |
| CTG 12 GAUGE FLASH/BANG NON-LETHAL                |  |  |              |      |   | 113          |      |                     |              |      |                        |              |      |          |
| USAMTU FT BENNING                                 |  |  | 1396         |      |   | 1247         |      |                     | 370          |      |                        | 356          |      |          |
| NEW EQUIPMENT TRAINING                            |  |  | 160          |      |   | 233          |      |                     | 174          |      |                        | 182          |      |          |
| RIOT CONTROL AGENT CS CAPSULE                     |  |  | 404          |      |   | 87           |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>2145</b>  |      |   | <b>2222</b>  |      |                     | <b>801</b>   |      |                        | <b>749</b>   |      |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 25MM, ALL TYPES (E08200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 963.0       | 45.5    | 68.2    | 79.9    | 86.2    | 59.6    | 60.9    | 72.6    | 84.1    | 88.7    | 0.0         | 1608.7     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 963.0       | 45.5    | 68.2    | 79.9    | 86.2    | 59.6    | 60.9    | 72.6    | 84.1    | 88.7    | 0.0         | 1608.7     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 963.0       | 45.5    | 68.2    | 79.9    | 86.2    | 59.6    | 60.9    | 72.6    | 84.1    | 88.7    | 0.0         | 1608.7     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes 25MM ALL TYPES.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |                    |              | P-1 Line Item Nomenclature:<br>CTG, 25MM, ALL TYPES (E08200) |                    |              | Weapon System Type: |                    |              | Date:<br>February 1998 |                    |              |                |
|---|--|--|--------------------|--------------|--|--------------------|--------------|---------------------|--------------------|--------------|------------------------|--------------------|--------------|----------------|
| Ammunition<br>Cost Elements               |  | ID<br>CD   | FY 96              |              |  | FY 97              |              |                     | FY 98              |              |                        | FY 99              |              |                |
|   |  |  | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$   | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$      | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$         | TotalCost<br>\$000 | Qty<br>x1000 | UnitCost<br>\$ |
| CTG 25MM TP-T M793                        |  |  | 22281              | 1240         | 17.97  | 7174               | 487          | 14.72               | 20029              | 1283         | 15.61                  | 19086              | 1458         | 13.09          |
| CTG 25MM TP-T M793                        |  |  | 411                | 28           | 14.72  |                    |              |                     |                    |              |                        |                    |              |                |
| CTG 25MM TPDS-T M910                      |  |  | 45487              | 2272         | 20.02  | 39925              | 2323         | 17.19               | 25102              | 1420         | 17.68                  | 40532              | 2560         | 15.83          |
| CTG 25MM APFSDS-T M919                    |  |  |                    |              |  | 32793              | 244          |                     | 41058              | 289          |                        |                    |              |                |
| <b>TOTAL</b>                              |  |  | 68179              |              |  | 79892              |              |                     | 86189              |              |                        | 59618              |              |                |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 25MM TP-T M793 (E08203)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 16102       | 789     | 1268    | 487     | 1283    | 1458    | 1232    | 1201    | 1200    | 1202    |             | 26222      |
| Gross Cost       | 221.6       | 11.7    | 22.7    | 7.2     | 20.0    | 19.1    | 16.4    | 16.2    | 16.4    | 16.6    | 0.0         | 367.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 221.6       | 11.7    | 22.7    | 7.2     | 20.0    | 19.1    | 16.4    | 16.2    | 16.4    | 16.6    | 0.0         | 367.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 221.6       | 11.7    | 22.7    | 7.2     | 20.0    | 19.1    | 16.4    | 16.2    | 16.4    | 16.6    | 0.0         | 367.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M793 cartridge is a percussion primed 25mm Target Practice-Traced (TP-T) cartridge with M28 link for use in the M242 gun which is mounted on the Bradley Fighting Vehicle System. The M793 training round is ballistically matched to the M792 High Explosive Incendiary-Tracer (HEI-T) ammunition. This round will be packaged/shipped in the M621 plastic container, 30 rounds per container. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1979

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |                | P-1 Line Item Nomenclature:<br>CTG 25MM TP-T M793 (E08203) |              |                | Weapon System Type: |              |                | Date:<br>February 1998 |              |                |
|---|----------|--|--------------|----------------|--|--------------|----------------|---------------------|--------------|----------------|------------------------|--------------|----------------|
| <b>Ammunition<br/>Cost Elements</b>               | ID<br>CD | <b>FY 96</b>   |              |                | <b>FY 97</b>   |              |                | <b>FY 98</b>        |              |                | <b>FY 99</b>           |              |                |
|   |          | TotalCost<br>\$000   | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000   | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>x1000 | UnitCost<br>\$ |
| <b>AMMUNITION HARDWARE</b>                        |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| Load, Assemble and Pack<br>Container PA 125       |          | 17847  | 1268         | 13.29          | 6078   | 487          | 12.47          | 15937<br>1344       | 1283<br>43   | 12.42<br>31.37 | 18543                  | 1458         | 12.72          |
| <b>SubTotal AMMO Hardware</b>                     |          | 17847  |              |                | 6078   |              |                | 17281               |              |                | 18543                  |              |                |
| <b>Production Support Costs</b>                   |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| Production Engineering                            |          | 556  |              |                | 223  |              |                | 1770                |              |                | 168                    |              |                |
| Quality Assurance                                 |          | 24   |              |                | 9  |              |                | 43                  |              |                | 4                      |              |                |
| Acceptance Testing                                |          | 205  |              |                | 66   |              |                | 199                 |              |                |                        |              |                |
| Interim Transportation                            |          | 69   |              |                | 58   |              |                | 124                 |              |                |                        |              |                |
| Industrial Stock Support                          |          | 751  |              |                |  |              |                | 612                 |              |                | 371                    |              |                |
| CAWCF Gain/Loss Surcharge                         |          | 3240   |              |                | 740  |              |                |                     |              |                |                        |              |                |
| <b>SubTotal Prod. Support</b>                     |          | 4845   |              |                | 1096   |              |                | 2748                |              |                | 543                    |              |                |
| <b>TOTAL</b>                                      |          | 22692  |              | 16.35          | 7174   |              | 14.72          | 20029               |              | 15.61          | 19086                  |              | 13.09          |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 25MM TP-T M793 (E08203)

| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                    | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|-------------------------------------|--|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96*** | Olin Ordnance<br>Marion, IL                | C/FP                     | IOC             | Apr-96     | May-97                 | 470       | #12.47       |                  |                  |                |
| FY 96***                            | Alliant Tech Sys, Inc.<br>New Brighton, MN | C/FP                     | IOC             | Apr-96     | May-97                 | 770       | #11.40       |                  |                  |                |
| FY 96***                            | Alliant Tech Sys, Inc.<br>New Brighton, MN | C/FP                     | IOC             | May-98     | Dec-98                 | 28        | #12.47       |                  |                  |                |
| FY 97***                            | Alliant Tech Sys, Inc.<br>New Brighton, MN | C/FP                     | IOC             | May-97     | Jan-98                 | 184       | #12.36       | Yes              |                  | Feb-97         |
| FY 97***                            | Primex<br>Marion, IL                       | C/FP                     | IOC             | May-97     | Nov-98                 | 303       | #12.36       | Yes              |                  | Feb-97         |
| FY 98                               | TBS  | C/FP                     | IOC             | Mar-98     | May-99                 | 1283      | 12.42        | Yes              |                  | Oct-97         |
| FY 99***                            | TBS  | C/FP                     | IOC             | Mar-99     | May-00                 | 1458      | 12.72        | Yes              |                  | Oct-98         |
| Container PA125<br>FY 96            | Plant Procured                             | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |
| FY 97                               | Plant Procured                             | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |
| FY 98                               | TBS  | C/FP                     | IOC             | Mar-98     | May-99                 | 43        | 31.37        | Yes              |                  | Oct-97         |
| FY 99                               | Plant Procured                             | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected  
 # Actual contract price for multiple producers.  
 \*\*\*Complete Round





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 25MM TPDS-T M910 (E08204)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 9081        | 468     | 2272    | 2323    | 1420    | 2560    | 2072    | 2072    | 2072    | 2072    |             | 26412      |
| Gross Cost       | 154.5       | 9.4     | 45.5    | 40.0    | 25.1    | 40.5    | 31.8    | 32.3    | 32.7    | 33.1    | 0.0         | 444.8      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 154.5       | 9.4     | 45.5    | 40.0    | 25.1    | 40.5    | 31.8    | 32.3    | 32.7    | 33.1    | 0.0         | 444.8      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 154.5       | 9.4     | 45.5    | 40.0    | 25.1    | 40.5    | 31.8    | 32.3    | 32.7    | 33.1    | 0.0         | 444.8      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 25mm Armor Piercing (AP) training round is ballistically matched to the 25mm cartridge AP Discarding Sabot, with Tracer M791 and the AP Fin Stabilized Discarding Sabot, with Tracer M919. The M910 is used in gunnery training and qualification of the M2/M3 Bradley Fighting Vehicles in lieu of the M791 and the M919. This round supports live Bradley Fighting Vehicle training at smaller facilities that cannot use the long range combat cartridges. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals. The maximum range of the current APDS-T and the follow-on APFSDS-T cartridges precludes their use on most training ranges. Bradley Fighting Vehicle crews cannot obtain meaningful training without this round.

**TYPE CLASSIFICATION DATE:**

1988

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 25MM TPDS-T M910 (E08204) |              |       | Weapon System Type: |               |            | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|---------------|------------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b>  |            |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost     | Qty        | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000         | x1000      | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |               |            |                        |              |       |          |
| Load, Assemble and Pack<br>Container PA125        |  |  | 35732        | 2272  | 15.73  | 33826        | 2323  | 14.56               | 20173<br>1488 | 1420<br>47 | 14.21<br>31.37         | 37642        | 2560  | 14.70    |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 35732        |       |  | 33826        |       |                     | 21661         |            |                        | 37642        |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |               |            |                        |              |       |          |
| Production Engineering                            |  |  | 1108         |       |  | 1242         |       |                     | 2215          |            |                        | 2132         |       |          |
| Quality Assurance                                 |  |  | 50           |       |  | 47           |       |                     | 54            |            |                        | 4            |       |          |
| Acceptance Testing                                |  |  | 411          |       |  | 369          |       |                     | 249           |            |                        |              |       |          |
| Interim Transportation                            |  |  | 136          |       |  | 321          |       |                     | 156           |            |                        |              |       |          |
| Industrial Stock Support                          |  |  | 1518         |       |  | 1            |       |                     | 767           |            |                        | 754          |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 6532         |       |  | 4119         |       |                     |               |            |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 9755         |       |  | 6099         |       |                     | 3441          |            |                        | 2890         |       |          |
| <b>TOTAL</b>                                      |  |  | 45487        |       | 20.02  | 39925        |       | 17.19               | 25102         |            | 17.68                  | 40532        |       | 15.83    |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 25MM TPDS-T M910 (E08204)

| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                    | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|-------------------------------------|--|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96*** | Alliant Tech Sys, Inc.<br>New Brighton, MN | C/FP                     | IOC             | Apr-96     | Apr-97                 | 1580      | #12.90       |                  |                  |                |
| FY 96***                            | Olin Ordnance<br>Marion, IL                | C/FP                     | IOC             | Apr-96     | May-97                 | 692       | #14.43       |                  |                  |                |
| FY 97***                            | Alliant Tech Sys, Inc.<br>New Brighton, MN | C/FP                     | IOC             | Jun-97     | Mar-98                 | 1111      | #12.20       | Yes              |                  | Mar-97         |
| FY 97***                            | Primex<br>Marion, IL                       | C/FP                     | IOC             | Jun-97     | Apr-98                 | 1212      | #12.20       | Yes              |                  | Mar-97         |
| FY 98                               | TBS  | C/FP                     | IOC             | Mar-98     | May-99                 | 1420      | 14.21        | Yes              |                  | Oct-97         |
| FY 99***                            | TBS  | C/FP                     | IOC             | Mar-99     | May-00                 | 2560      | 14.70        | Yes              |                  | Oct-98         |
| Container PA125<br>FY 96            | Plant Procured                             | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |
| FY 97                               | Plant Procured                             | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |
| FY 98                               | TBS  | C/FP                     | IOC             | Mar-98     | Mar-99                 | 47        | 31.37        | Yes              |                  | Oct-97         |
| FY 99                               | Plant Procured                             | N/A                      | N/A             | N/A        | N/A                    | N/A       | N/A          | N/A              |                  | N/A            |

REMARKS: # Actual Contract Price for Multiple Producers  
 TBS - To Be Selected  
 \*\*\*Complete Round







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 25MM APFSDS-T M919 (E08210)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 527         | 160     |         | 244     | 289     |         | 85      | 163     | 279     | 315     |             | 2062       |
| Gross Cost       | 81.9        | 22.8    | 0.0     | 32.8    | 41.1    | 0.0     | 12.7    | 24.1    | 35.0    | 38.9    | 0.0         | 289.3      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 81.9        | 22.8    | 0.0     | 32.8    | 41.1    | 0.0     | 12.7    | 24.1    | 35.0    | 38.9    | 0.0         | 289.3      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 81.9        | 22.8    | 0.0     | 32.8    | 41.1    | 0.0     | 12.7    | 24.1    | 35.0    | 38.9    | 0.0         | 289.3      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 25mm Armor Piercing Fin Stabilized Discarding Sabot - Tracer (APFSDS-T) M919. The M919 uses the state-of-the-art technology by incorporating high energy propellants, low drag design, and improved penetrator material. This item is Code A, approved for service use. This item has not transitioned to the SMCA and will be procured at actual cost.

**JUSTIFICATION:**

The M919 will replace the M791 as the primary armor piercing cartridge for use in the 25mm, M242 Automatic Gun which is mounted on the M2/M3 Bradley Fighting Vehicle System, thus increasing its effectiveness against light threat weapon systems and enhancing its survivability. The current M791 does not defeat the current threat.

Type Classification Date: TC Limited Production Urgent, September 1989.

TC Standard September 1993.

Limited Material Release: September 1996

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 25MM APFSDS-T M919 (E08210) |              |       | Weapon System Type:<br>25mm, M242 Automatic Gun |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |   | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |   |              |       |                        |              |       |          |
| 1. Complete Round                                 |  | A  |              |       |  | 30471        | 244   | 124.88  | 37731        | 289   | 130.56                 |              |       |          |
| 2. Other Hardware                                 |  |  |              |       |  | 534          |       |   | 650          |       |                        |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |       |  | <b>31005</b> |       |   | <b>38381</b> |       |                        |              |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |   |              |       |                        |              |       |          |
| 1. Production Engineering                         |  |  |              |       |  | 1060         |       |   | 1972         |       |                        |              |       |          |
| 2. Quality Assurance                              |  |  |              |       |  | 120          |       |   | 210          |       |                        |              |       |          |
| 3. Acceptance Testing                             |  |  |              |       |  | 162          |       |   | 395          |       |                        |              |       |          |
| 4. Interim Transportation                         |  |  |              |       |  | 146          |       |   | 100          |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |       |  | <b>1488</b>  |       |   | <b>2677</b>  |       |                        |              |       |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |  |              |       |   |              |       |                        |              |       |          |
| 1. PURSUIT OF 25MM REFERENCE LOT                  |  |  |              |       |  | 300          |       |   |              |       |                        |              |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |  | <b>300</b>   |       |   |              |       |                        |              |       |          |
| <b>TOTAL</b>                                      |  |  |              |       |  | <b>32793</b> |       | <b>134.44</b>                                   | <b>41058</b> |       | <b>142.07</b>          |              |       |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type: 25mm, M242 Automatic Gun  
 P-1 Line Item Nomenclature: CTG 25MM APFSDS-T M919 (E08210)

| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                | Contract Method and Type | Location of PCO | Award Date       | Date of First Delivery | QTY Each         | Unit Cost \$     | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|-------------------------------------|--|--------------------------|-----------------|------------------|------------------------|------------------|------------------|------------------|------------------|----------------|
| 1. COMPLETE ROUND<br>FY 97<br>FY 98 | PRIMEX-MARION, IL<br>PRIMEX-MARION, IL | SS/FP<br>OPTION          | ARDEC<br>ARDEC  | Sep-97<br>May-98 | May-98<br>Feb-99       | 244000<br>289000 | 124.88<br>130.56 | Yes<br>Yes       | No<br>No         |                |

REMARKS:





|  |             |         |         |         |                                 |  |         |                     |         |         |             |            |
|--|-------------|---------|---------|---------|---------------------------------|--|---------|---------------------|---------|---------|-------------|------------|
| <b>Exhibit P-40, Budget Item Justification Sheet</b>                                     |             |         |         |         |                                 |  |         | Date: February 1998 |         |         |             |            |
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |             |         |         |         |                                 | P-1 Item Nomenclature:<br>DEMOLITION MUNITIONS, ALL TYPES (E55400) |         |                     |         |         |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:   | Other Related Program Elements: |  |         |                     |         |         |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998                         | FY 1999  | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Gross Cost   | 241.1       | 39.7    | 30.2    | 16.4    | 18.3                            | 8.8  | 13.5    | 19.0                | 24.5    | 25.1    | 0.0         | 436.6      |
| Less PY Adv Proc   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Plus CY Adv Proc   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Net Proc (P-1)   | 241.1       | 39.7    | 30.2    | 16.4    | 18.3                            | 8.8  | 13.5    | 19.0                | 24.5    | 25.1    | 0.0         | 436.6      |
| Initial Spares   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Total Proc Cost  | 241.1       | 39.7    | 30.2    | 16.4    | 18.3                            | 8.8  | 13.5    | 19.0                | 24.5    | 25.1    | 0.0         | 436.6      |
| Flyaway U/C  |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Wpn Sys Proc U/C   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| <b>DESCRIPTION:</b>  |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| This budget line includes Demolition Munitions ALL TYPES.                                |             |         |         |         |                                 |  |         |                     |         |         |             |            |

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF<br>AMMUNITION / 1 / Ammunition |              |                | P-1 Line Item Nomenclature:<br>DEMOLITION MUNITIONS, ALL<br>TYPES (E55400) |              |                | Weapon System Type: |              |                | Date:<br>February 1998 |              |                |
|---|----------|--|--------------|----------------|--|--------------|----------------|---------------------|--------------|----------------|------------------------|--------------|----------------|
| Ammunition<br>Cost Elements               | ID<br>CD | FY 96  |              |                | FY 97  |              |                | FY 98               |              |                | FY 99                  |              |                |
|   |          | TotalCost<br>\$000   | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000   | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>x1000 | UnitCost<br>\$ |
| SELECTIVE LTWT ATTACK MUNITION            |          |  |              |                | 8774   | 9            | 968.00         |                     |              |                |                        |              |                |
| CHG DEMO BLK COMP C-4 1-1/4 LB            |          | 11302  | 619          | 18.26          |  |              |                | 12971               | 345          | 37.60          |                        |              |                |
| CORD DETONATING TYPE 1                    |          | 852  | 4260         | 0.20           |  |              |                | 1615                | 14922        | 0.11           | 339                    | 3004         | 0.11           |
| CHARGE DEMO SHAPED                        |          | 614  | 76           | 8.08           | 2662   | 303          | 1.79           |                     |              |                |                        |              |                |
| CAP BLASTING NON-ELEC,                    |          | 2975   | 912          | 3.26           |  |              |                |                     |              |                | 1226                   | 304          | 4.14           |
| CAP BLASTING NON-ELEC,                    |          | 1101   | 54           | 20.39          | 1712   | 122          | 14.03          |                     |              |                | 302                    | 18           | 17.28          |
| CAP BLASTING NON-ELEC,                    |          | 498  | 15           | 33.20          | 503  | 16           | 31.44          |                     |              |                | 1315                   | 47           | 28.75          |
| CAP BLASTING NON-ELEC,                    |          | 1496   | 175          | 8.55           | 1542   | 168          | 9.76           | 1602                | 166          | 9.87           |                        |              |                |
| FUSE BLASTING TIME M700                   |          |  |              |                |  |              |                |                     |              |                | 189                    | 1381         | 0.14           |
| IGNITER, TIME FUZE AND                    |          | 981  | 288          | 3.41           | 1032   | 277          | 3.73           | 1356                | 414          | 3.35           |                        |              |                |
| CUTTER CTG ACTUATED 2SEC                  |          |  |              |                |  |              |                | 659                 | 10           | 66.90          | 1117                   | 10           | 113.10         |
| CAP, BLASTING INERT NON-                  |          | 13   | 1            | 13.00          |  |              |                |                     |              |                | 269                    | 16           | 17.25          |
| CAP, BLASTING INERT NON-ELECT             |          | 93   | 10           | 9.30           | 102  | 11           | 9.27           | 100                 | 11           | 9.27           | 265                    | 36           | 7.58           |
| CAP, BLASTING INERT NON-ELECT             |          | 57   | 4            | 14.25          | 49   | 7            | 7.00           | 42                  | 5            | 8.60           | 336                    | 60           | 5.75           |
| CAP BLASTING NON-ELECTRIC 10 FT SHOCK     |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| TUBE XM15                                 |          |  |              |                |  |              |                |                     |              |                | 384                    | 93           | 4.25           |
| CAP BLASTING NON-ELECTRIC                 |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| SHOCK TUBE XM17                           |          |  |              |                |  |              |                |                     |              |                | 872                    | 69           | 12.99          |
| CAP BLASTING NON-ELECTRIC                 |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| DELAY XM18                                |          |  |              |                |  |              |                |                     |              |                | 2186                   | 156          | 14.39          |
| CHG DEMO BLK CENTERING 40                 |          | 5939   | 16           | 379.76         |  |              |                |                     |              |                |                        |              |                |
| CHG DEMO SHAPED M3 40 LB                  |          | 2546   | 10           | 242.85         |  |              |                |                     |              |                |                        |              |                |
| IGNITER FUSE BLASTING TIME                |          | 406  | 115          | 3.53           |  |              |                |                     |              |                |                        |              |                |
| HOLDER FOR BLASTING CAP                   |          | 713  | 1637         | 0.44           |  |              |                |                     |              |                |                        |              |                |
| CAP BLASTING INERT NON-                   |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| W/30 F                                    |          | 353  | 71           | 4.97           |  |              |                |                     |              |                |                        |              |                |
| CAP BLASTING NON-ELEC                     |          |  |              |                |  |              |                |                     |              |                |                        |              |                |
| W/70 FT                                   |          | 285  | 36           | 7.92           |  |              |                |                     |              |                |                        |              |                |
| <b>TOTAL</b>                              |          | <b>30224</b>   |              |                | <b>16376</b>   |              |                | <b>18345</b>        |              |                | <b>8800</b>            |              |                |

| <b>Exhibit P-40, Budget Item Justification Sheet</b>   |             |         |         |         |                                 |   |         | Date: February 1998 |         |         |             |            |
|--|-------------|---------|---------|---------|---------------------------------|---|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |         |                                 | P-1 Item Nomenclature:<br>SELECTIVE LTWT ATTACK MUNITION (SOF) (E52000) |         |                     |         |         |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:   | Other Related Program Elements: |   |         |                     |         |         |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998                         | FY 1999   | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty   |             |         |         | 9       |                                 |   |         |                     | 5       | 9       |             | 23         |
| Gross Cost   | 0.0         | 0.0     | 0.0     | 8.8     | 0.0                             | 0.0   | 0.0     | 0.0                 | 9.5     | 9.4     | 0.0         | 27.7       |
| Less PY Adv Proc   |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Plus CY Adv Proc   |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 8.8     | 0.0                             | 0.0   | 0.0     | 0.0                 | 9.5     | 9.4     | 0.0         | 27.7       |
| Initial Spares   |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 8.8     | 0.0                             | 0.0   | 0.0     | 0.0                 | 9.5     | 9.4     | 0.0         | 27.7       |
| Flyaway U/C  |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Wpn Sys Proc U/C   |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| <p><b>DESCRIPTION:</b><br/> The Army SLAM is a lighthweight (2.2lbs), compact hand emplaced munition offering the user multiple modes of operation. The Warhead is an explosively formed penetrator (EFP) to provide a capability to engage and defeat targets from 5 inches to 25 ft. It's 4 modes are bottom attack (magnetic signature), side/top attack (infrared signature), timed demolition and operator-initiated command detonation.</p> <p><b>JUSTIFICATION:</b><br/> The Army SLAM program is a modified NDI. The SLAM was developed for US SOCOM. This device will be modified by including a self-destruct feature in all electronic modes of operation. The FY97 procurement quantity supports the Army War Reserve Requirement.</p> <p>Type Classification Date: September 1996<br/> Acquisition Manager: Project Manager, Mines Countermine and Demolitions (PM-MCD)</p> |             |         |         |         |                                 |   |         |                     |         |         |             |            |



| Exhibit P-5, Weapon<br>Ammo Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF<br>AMMUNITION / 1 / Ammunition |      |          | P-1 Line Item Nomenclature:<br>SELECTIVE LTWT ATTACK<br>MUNITION (SOF) (E52000) |      |          | Weapon System Type: |      |          | Date:<br>February 1998 |      |          |
|---|----------|--|------|----------|---|------|----------|---------------------|------|----------|------------------------|------|----------|
| Ammunition<br>Cost Elements               | ID<br>CD | FY 96  |      |          | FY  |      |          | FY 98               |      |          | FY 99                  |      |          |
|   |          | TotalCost  | Qty  | UnitCost | TotalCost   | Qty  | UnitCost | TotalCost           | Qty  | UnitCost | TotalCost              | Qty  | UnitCost |
|   |          | \$000  | Each | \$       | \$000   | Each | \$       | \$000               | Each | \$       | \$000                  | Each | \$       |
| AMMUNITION HARDWARE                       |          |  |      |          |   |      |          |                     |      |          |                        |      |          |
| 1.Load, Assemble, and Pack- Selected      | B        |  |      |          | 7175  | 9064 | 792      |                     |      |          |                        |      |          |
| Attack Munition M4 - Complete             |          |  |      |          |   |      |          |                     |      |          |                        |      |          |
| 2. Trainer Kits (M299)                    | A        |  |      |          | 503   | 285  | 1765     |                     |      |          |                        |      |          |
| SubTotal AMMO Hardware                    |          |  |      |          | 7678  |      |          |                     |      |          |                        |      |          |
| Production Support Costs                  |          |  |      |          |   |      |          |                     |      |          |                        |      |          |
| 1. Production Engineering                 |          |  |      |          | 573   |      |          |                     |      |          |                        |      |          |
| 2. Quality Assurance                      |          |  |      |          | 270   |      |          |                     |      |          |                        |      |          |
| 3. Acceptance Testing                     |          |  |      |          | 253   |      |          |                     |      |          |                        |      |          |
| SubTotal Prod. Support                    |          |  |      |          | 1096  |      |          |                     |      |          |                        |      |          |
| TOTAL                                     |          |  |      |          | 8774  | 9064 | 968      |                     |      |          |                        |      |          |

| Exhibit P-5a, Budget Procurement History and Planning   |                          |                          |                       |            |   |          |              |                  |                  | Date:          |
|---|--------------------------|--------------------------|-----------------------|------------|---|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition                     |                          |                          |                       |            |   |          |              |                  |                  | February 1998  |
| Weapon System Type:   |                          |                          |                       |            | P-1 Line Item Nomenclature:                   |          |              |                  |                  |                |
|   |                          |                          |                       |            | SELECTIVE LTWT ATTACK MUNITION (SOF) (E52000) |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location  | Contract Method and Type | Location of PCO       | Award Date | Date of First Delivery                        | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFI Issue Date |
| LAP- Selectable Ltwt Attack Munition M4<br>FY 97  | Alliant Tech Systems, MN | C/FP                     | Picatinny Arsenal, NJ | Jul-97     | Sep-98  | 9064     | 792          | Yes              |                  |                |
| Trainer Kits (M299)<br>FY 97  | Alliant Tech Systems, MN | C/FP                     | Picatinny Arsenal, NJ | Jul-97     | Jul-98  | 285      | 1765         | Yes              |                  |                |
| REMARK Contract Awarded for both Special Operations Forces (SOF) and U.S. Army Requirements. U.S. Army Delivery |                          |                          |                       |            |   |          |              |                  |                  |                |



| <b>Exhibit P-40, Budget Item Justification Sheet</b>  |             |         |         |            |                                 |  |         |         |         | Date:<br>February 1998 |             |            |
|---|-------------|---------|---------|------------|---------------------------------|--|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |            |                                 | P-1 Item Nomenclature:<br>CHG DEMO BLK COMP C-4 1-1/4 LB M112 (E50601) |         |         |         |                        |             |            |
| Program Elements for Code B Items:  |             |         |         | Code:<br>A | Other Related Program Elements: |  |         |         |         |                        |             |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998                         | FY 1999  | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty  | 4634        | 2132    | 619     |            | 345                             |  |         |         |         |                        |             | 7730       |
| Gross Cost  | 21.5        | 21.9    | 11.3    | 0.0        | 13.0                            | 0.0  | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 67.7       |
| Less PY Adv Proc  |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| Plus CY Adv Proc  |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| Net Proc (P-1)  | 21.5        | 21.9    | 11.3    | 0.0        | 13.0                            | 0.0  | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 67.7       |
| Initial Spares  |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| Total Proc Cost   | 21.5        | 21.9    | 11.3    | 0.0        | 13.0                            | 0.0  | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 67.7       |
| Flyaway U/C   |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| Wpn Sys Proc U/C  |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| <b>DESCRIPTION:</b>   |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| <p>The block demolition charge consists of 1-1/4 pounds of composition C4 plastic explosive packed in a mylar-film bag. Pressure sensitive adhesive tape is provided on one of the rectangular surfaces, allowing quick emplacement by the individual soldier on the object to be destroyed. The explosive may be cut and/or removed from its wrapper and hand molded into a desired shape suited to the target. Upon detonation, the shock wave destroys the target by cutting, breaching or cratering. This item is Code A, approved for service use.</p> |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| <b>JUSTIFICATION:</b>   |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| <p>Composition C4 is the primary demolition explosive used by the U.S. Army. This is a training standard item used in both training and combat. Procurement supports annual peacetime training, demilitarization requirements, and builds a war reserve inventory in accordance with the Army's procurement goals.</p>  |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| <b>TYPE CLASSIFICATION DATE:</b>  |             |         |         |            |                                 |  |         |         |         |                        |             |            |
| Prior to 1960.  |             |         |         |            |                                 |  |         |         |         |                        |             |            |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF<br>AMMUNITION / 1 / Ammunition |       |          | P-1 Line Item Nomenclature:<br>CHG DEMO BLK COMP C-4 1-<br>1/4 LB M112 (E50601) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----------|--|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               | ID<br>CD | <b>FY 96</b>   |       |          | <b>FY</b>   |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
|   |          | TotalCost  | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |          | \$000  | x1000 | \$       | \$000   | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |          |  |       |          |   |       |          |                     |       |          |                        |       |          |
| Load, Assemble and Pack                           |          | 2242   | 619   | 3.62     |   |       |          | 1362                | 345   | 3.95     |                        |       |          |
| Comp C-4 Class 3                                  |          | 6637   | 786   | 8.44     |   |       |          | 9831                | 438   | 22.44    |                        |       |          |
| <b>SubTotal AMMO Hardware</b>                     |          | 8879   |       |          |   |       |          | 11193               |       |          |                        |       |          |
| <b>Production Support Costs</b>                   |          |  |       |          |   |       |          |                     |       |          |                        |       |          |
| Production Engineering                            |          | 275  |       |          |   |       |          | 1144                |       |          |                        |       |          |
| Quality Assurance                                 |          | 12   |       |          |   |       |          | 28                  |       |          |                        |       |          |
| Acceptance Testing                                |          | 102  |       |          |   |       |          | 129                 |       |          |                        |       |          |
| Interim Transportation                            |          | 34   |       |          |   |       |          | 81                  |       |          |                        |       |          |
| Industrial Stock Support                          |          | 377  |       |          |   |       |          | 396                 |       |          |                        |       |          |
| CAWCF Gain/Loss Surcharge                         |          | 1623   |       |          |   |       |          |                     |       |          |                        |       |          |
| <b>SubTotal Prod. Support</b>                     |          | 2423   |       |          |   |       |          | 1778                |       |          |                        |       |          |
| <b>TOTAL</b>                                      |          | 11302  |       | 18.26    |   |       |          | 12971               |       | 37.60    |                        |       |          |

| Exhibit P-5a, Budget Procurement History and Planning                                       |   |                          |                 |            |                        |          |   |                  |                  | Date:      |  |
|---|---|--------------------------|-----------------|------------|------------------------|----------|---|------------------|------------------|------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |   |                          |                 |            | Weapon System Type:    |          | P-1 Line Item Nomenclature:<br>CHG DEMO BLK COMP C-4 1-1/4 LB M112 (E50601) |                  |                  |            |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                 | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$  | Specs Avail Now? | Date Revsn Avail | Issue Date |  |
| Load, Assemble and Pack<br>FY 96  | Martin Marietta (MAAP)<br>Milan, TN     | C/FP                     | IOC             | Aug-96     | Feb-97                 | 619040   | 3.62  | Yes              |                  |            |  |
| FY 98   | Martin Marietta (MAAP)<br>Milan, TN     | C/FP                     | IOC             | Feb-98     | Dec-98                 | 344955   | 3.95  | Yes              |                  | Oct-97     |  |
| Comp C-4 Class 3<br>FY 96   | Holston Defense (HAAP)<br>Kingsport, TN | SS/CPFF                  | IOC             | Aug-96     | Jan-97                 | 786181   | 8.44  | Yes              |                  |            |  |
| FY 98   | Holston Defense (HAAP)<br>Kingsport, TN | SS/CPFF                  | IOC             | Feb-98     | Oct-98                 | 438093   | 22.44   | Yes              |                  | Oct-97     |  |
| REMARK  |   |                          |                 |            |                        |          |   |                  |                  |            |  |



| <b>Exhibit P-40, Budget Item Justification Sheet</b>   |             |         |         |            |   |         |         |         |         | Date:<br>February 1998 |             |            |
|--|-------------|---------|---------|------------|---|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |            | P-1 Item Nomenclature:<br>CORD DETONATING TYPE 1 (E54100) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:<br>A | Other Related Program Elements:                           |         |         |         |         |                        |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998   | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty   | 192290      |         | 4260    |            | 14922   | 3004    |         |         |         |                        |             | 214476     |
| Gross Cost   | 10.5        | 0.0     | 0.9     | 0.0        | 1.6   | 0.3     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 13.3       |
| Less PY Adv Proc   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Plus CY Adv Proc   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Net Proc (P-1)   | 10.5        | 0.0     | 0.9     | 0.0        | 1.6   | 0.3     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 13.3       |
| Initial Spares   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Total Proc Cost  | 10.5        | 0.0     | 0.9     | 0.0        | 1.6   | 0.3     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 13.3       |
| Flyaway U/C  |             |         |         |            |   |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C   |             |         |         |            |   |         |         |         |         |                        |             |            |
| <b>DESCRIPTION:</b>  |             |         |         |            |   |         |         |         |         |                        |             |            |
| <p>The detonating cord, Type 1, Class E, is the only standard cord used by the Army. It consists of a core of high velocity explosive in a seamless textile tube. The tube is covered with a thin layer of asphalt and sheathed in an outer cover of plastic coated textile. It has a detonating velocity of not less than 21,000 to 23,000 feet per second. This detonating cord may be used for detonating single or multiple demolition charges. Detonating cord may be initiated by a detonating cord initiator, or electric or non-electric blasting cap. This detonating cord is packed 3/1,000 ft spools per wooden box. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.</p> |             |         |         |            |   |         |         |         |         |                        |             |            |
| <b>JUSTIFICATION:</b>  |             |         |         |            |   |         |         |         |         |                        |             |            |
| <p>This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training, demilitarization requirements, and builds a war reserve inventory in accordance with the Army's procurement goals.</p>   |             |         |         |            |   |         |         |         |         |                        |             |            |
| <b>TYPE CLASSIFICATION DATE:</b>   |             |         |         |            |   |         |         |         |         |                        |             |            |
| 1958   |             |         |         |            |   |         |         |         |         |                        |             |            |



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF<br>AMMUNITION / 1 / Ammunition |              |                | P-1 Line Item Nomenclature:<br>CORD DETONATING TYPE 1<br>(E54100) |              |                | Weapon System Type: |              |                | Date:<br>February 1998 |              |                |
|---|----------|--|--------------|----------------|---|--------------|----------------|---------------------|--------------|----------------|------------------------|--------------|----------------|
| <b>Ammunition<br/>Cost Elements</b>               | ID<br>CD | <b>FY 96</b>   |              |                | <b>FY</b>   |              |                | <b>FY 98</b>        |              |                | <b>FY 99</b>           |              |                |
|   |          | TotalCost<br>\$000   | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>x1000 | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>x1000 | UnitCost<br>\$ |
| <b>AMMUNITION HARDWARE</b>                        |          |  |              |                |   |              |                |                     |              |                |                        |              |                |
| Complete Round                                    |          | 677  | 4260         | 0.16           |   |              | 1394           | 14922               | 0.09         | 294            | 3004                   | 0.10         |                |
| Load, Assemble and Pack (FT)                      |          |  |              |                |   |              |                |                     |              | 17             | 1                      | 25.78        |                |
| Cap Blasting Elec M6                              |          |  |              |                |   |              |                |                     |              |                |                        |              |                |
| <b>SubTotal AMMO Hardware</b>                     |          | <b>677</b>   |              |                |   |              | <b>1394</b>    |                     |              | <b>311</b>     |                        |              |                |
| <b>Production Support Costs</b>                   |          |  |              |                |   |              |                |                     |              |                |                        |              |                |
| Production Engineering                            |          |  |              |                |   |              | 142            |                     |              | 17             |                        |              |                |
| Quality Assurance                                 |          | 1  |              |                |   |              | 3              |                     |              | 1              |                        |              |                |
| Acceptance Testing                                |          | 8  |              |                |   |              | 16             |                     |              | 4              |                        |              |                |
| Interim Transportation                            |          | 3  |              |                |   |              | 10             |                     |              |                |                        |              |                |
| Industrial Stock Support                          |          | 29   |              |                |   |              | 50             |                     |              | 6              |                        |              |                |
| CAWCF Gain/Loss Surcharge                         |          | 134  |              |                |   |              |                |                     |              |                |                        |              |                |
| <b>SubTotal Prod. Support</b>                     |          | <b>175</b>   |              |                |   |              | <b>221</b>     |                     |              | <b>28</b>      |                        |              |                |
| <b>TOTAL</b>                                      |          | <b>852</b>   |              | <b>0.20</b>    |   |              | <b>1615</b>    |                     | <b>0.11</b>  | <b>339</b>     |                        | <b>0.11</b>  |                |

| Exhibit P-5a, Budget Procurement History and Planning                                       |                                 |                          |                     |            |                        |  |              |                  |                  | Date:          |               |
|---|---------------------------------|--------------------------|---------------------|------------|------------------------|--|--------------|------------------|------------------|----------------|---------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |                                 |                          | Weapon System Type: |            |                        | P-1 Line Item Nomenclature:<br>CORD DETONATING TYPE 1 (E54100) |              |                  |                  |                | February 1998 |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location         | Contract Method and Type | Location of PCO     | Award Date | Date of First Delivery | QTY x1000  | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFI Issue Date |               |
| Load, Assemble and Pack<br>FY 96  | Ensign-Bickford<br>Simsbury, CT | C/FP                     | IOC                 | Aug-96     | Feb-97                 | 4260   | 0.16         |                  |                  |                |               |
| FY 98   | TBS                             | C/FP                     | IOC                 | Apr-98     | Dec-98                 | 15264  | 0.09         | Yes              |                  | Oct-97         |               |
| FY 99   | TBS                             | C/FP                     | IOC                 | Mar-99     | Oct-99                 | 3004   | 0.10         | Yes              |                  | Oct-98         |               |
| Cap Blasting Elec M6<br>FY 96   | Plant Procured                  | N/A                      | N/A                 | N/A        | N/A                    | N/A  | N/A          | N/A              |                  | N/A            |               |
| FY 98   | Plant Procured                  | N/A                      | N/A                 | N/A        | N/A                    | N/A  | N/A          | N/A              |                  | N/A            |               |
| FY 99   | TBS                             | C/FP                     | IOC                 | Nov-98     | Aug-99                 | 661  | 26.17        | Yes              |                  | Oct-98         |               |
| REMARK TBS - To Be Selected   |                                 |                          |                     |            |                        |  |              |                  |                  |                |               |





| <b>Exhibit P-40, Budget Item Justification Sheet</b>  |             |         |         |         |                                 |   |         | Date: February 1998 |         |         |             |            |
|---|-------------|---------|---------|---------|---------------------------------|---|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |         |                                 | P-1 Item Nomenclature:<br>CAP BLASTING NON-ELEC, W/30 FT SHOCK TUB (E81302) |         |                     |         |         |             |            |
| Program Elements for Code B Items:  |             |         |         | Code:   | Other Related Program Elements: |   |         |                     |         |         |             |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998                         | FY 1999   | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty  | 110         | 30      | 912     |         |                                 | 304   | 204     | 204                 | 204     | 204     |             | 2172       |
| Gross Cost  | 0.7         | 0.4     | 3.0     | 0.0     | 0.0                             | 1.2   | 0.8     | 0.8                 | 0.9     | 0.9     | 0.0         | 8.7        |
| Less PY Adv Proc  |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Plus CY Adv Proc  |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Net Proc (P-1)  | 0.7         | 0.4     | 3.0     | 0.0     | 0.0                             | 1.2   | 0.8     | 0.8                 | 0.9     | 0.9     | 0.0         | 8.7        |
| Initial Spares  |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Total Proc Cost   | 0.7         | 0.4     | 3.0     | 0.0     | 0.0                             | 1.2   | 0.8     | 0.8                 | 0.9     | 0.9     | 0.0         | 8.7        |
| Flyaway U/C   |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Wpn Sys Proc U/C  |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| <b>DESCRIPTION:</b><br>A nondelay military sized blasting cap which is factory crimped to 30ft. of shock tube. This component will be used to branch firing signals to and initiate explosive and demolition devices. This item has not transitioned to the SMCA and will be procured at actual cost.   |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| <b>JUSTIFICATION:</b><br>MDI is a set of components which non-electrically initiates explosives using "shock tube" technology which has been in commercial use for twenty years. The new components are lighter, more reliable and easier to use. In addition, because of a highly competitive commercial market, MDI will be lower in cost than the present components such as M6 and M7 blasting caps, det cord, etc. |             |         |         |         |                                 |   |         |                     |         |         |             |            |
| Type Classification Date: September 1993-Generic<br>Type Classification Date: April 1996 - Standard<br>Acquisition Manager: Project Manager, Mines Countermine and Demolitions (PM-MCD)   |             |         |         |         |                                 |   |         |                     |         |         |             |            |

| Exhibit P-5, Weapon<br>Ammo Cost Analysis                     |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF<br>AMMUNITION / 1 / Ammunition |            |             | P-1 Line Item Nomenclature:<br>CAP BLASTING NON-ELEC,<br>W/30 FT SHOCK TUB (E81302) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |            |             |
|---|----------|--|------------|-------------|---|-------|----------|---------------------|-------|----------|------------------------|------------|-------------|
| Ammunition<br>Cost Elements                                   | ID<br>CD | FY 96  |            |             | FY  |       |          | FY 98               |       |          | FY 99                  |            |             |
|   |          | TotalCost  | Qty        | UnitCost    | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty        | UnitCost    |
|   |          | \$000  | x1000      | \$          | \$000   | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000      | \$          |
| HARDWARE  |          |  |            |             |   |       |          |                     |       |          |                        |            |             |
| 1. Cap, Blasting: Non-electric,<br>with 30ft. shock tube, M11 |          | 2975   | 912        | 3.26        |   |       |          |                     |       |          | 1094                   | 304        | 3.60        |
| <b>SUBTOTAL</b>   |          | <b>2975</b>  |            |             |   |       |          |                     |       |          | <b>1094</b>            |            |             |
| PRODUCTION SUPPORT  |          |  |            |             |   |       |          |                     |       |          |                        |            |             |
| 1. PRODUCTION ENGINEERING                                     |          |  |            |             |   |       |          |                     |       |          | 72                     |            |             |
| 2. QUALITY ASSURANCE  |          |  |            |             |   |       |          |                     |       |          | 36                     |            |             |
| 3. ACCEPTANCE TESTING   |          |  |            |             |   |       |          |                     |       |          | 24                     |            |             |
| <b>SUBTOTAL</b>   |          |  |            |             |   |       |          |                     |       |          | <b>132</b>             |            |             |
| <b>TOTAL</b>  |          | <b>2975</b>  | <b>912</b> | <b>3.26</b> |   |       |          |                     |       |          | <b>1226</b>            | <b>304</b> | <b>4.03</b> |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |            |                        |           |              |   |                  | Date:      |  |
|---|-------------------------|--------------------------|-----------------|------------|------------------------|-----------|--------------|---|------------------|------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition                               |                         |                          |                 |            | Weapon System Type:    |           |              | P-1 Line Item Nomenclature:<br>CAP BLASTING NON-ELEC, W/30 FT SHOCK TUB<br>(E81302) |                  |            |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now?  | Date Revsn Avail | Issue Date |  |
| Cap, Blasting: Non-elec, w/30ft Shock Tube, M11   |                         |                          |                 |            |                        |           |              |   |                  |            |  |
| FY 96   | ICI Explosives, Canada  | Option                   | ARDEC           | Mar-96     | Feb-97                 | 300       | 3.10         | Yes   |                  |            |  |
| FY 96   | Ensign Bickford, CT     | C/FP                     | ARDEC           | Sep-96     | Oct-97                 | 612       | 3.34         | Yes   |                  |            |  |
| FY 99   | TBS                     | C/FP                     | ARDEC           | Mar-99     | Oct-99                 | 304       | 3.60         | Yes   |                  |            |  |
| REMARK FY96 PROCUREMENT CONSISTS OF EXERCISE OF MAXIMUM OPTION FOR 300,000 AND NEW PROCUREMENT FOR THE BALANCE OF 612,000 |                         |                          |                 |            |                        |           |              |   |                  |            |  |







| <b>Exhibit P-40, Budget Item Justification Sheet</b>  |             |         |         |         |                                 |  |         |         |         |         | Date:<br>February 1998 |            |
|---|-------------|---------|---------|---------|---------------------------------|--|---------|---------|---------|---------|------------------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION /Ammunition / 41472790  |             |         |         |         |                                 | P-1 Item Nomenclature:<br>Cap Blasting, Non-Electric, 20 Minute Delay (E81314) |         |         |         |         |                        |            |
| Program Elements for Code B Items:  |             |         |         | Code:   | Other Related Program Elements: |  |         |         |         |         |                        |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998                         | FY 1999  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete            | Total Prog |
| Proc Qty  |             |         |         |         |                                 | 156  | 114     | 114     | 114     | 114     |                        | 612        |
| Gross Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 0.0                             | 2.2  | 1.6     | 1.6     | 1.6     | 1.6     | 0.0                    | 8.5        |
| Less PY Adv Proc  |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Plus CY Adv Proc  |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Net Proc (P-1)  | 0.0         | 0.0     | 0.0     | 0.0     | 0.0                             | 2.2  | 1.6     | 1.6     | 1.6     | 1.6     | 0.0                    | 8.5        |
| Initial Spares  |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Total Proc Cost   | 0.0         | 0.0     | 0.0     | 0.0     | 0.0                             | 2.2  | 1.6     | 1.6     | 1.6     | 1.6     | 0.0                    | 8.5        |
| Flyaway U/C   |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Wpn Sys Proc U/C  |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| <b>DESCRIPTION:</b><br>A nondelay military sized blasting cap which is factory crimped to 30 ft of time fuse. This component will be used to branch firing signals to and initiate explosive and demolition devices. This item has not transitioned to the SMCA and will be procured at actual cost.  |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| <b>JUSTIFICATION:</b><br>MDI is a set of components which non-electrically initiates explosives using "shock tube" technology which has been in commercial use for twenty years. The new components are lighter, more reliable and easier to use. In addition, because of a highly competitive commercial market, MDI will be lower in cost than the present components such as M6 and M7 blasting caps, det cord, etc. |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Type Classification Date: February 1998 -Standard   |             |         |         |         |                                 |  |         |         |         |         |                        |            |

| Exhibit P-5, Weapon<br>Ammo Cost Analysis  |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF<br>AMMUNITION /Ammunition / |       |          | P-1 Line Item Nomenclature:<br>Cap Blasting, Non-Electric, 20<br>Minute Delay (E81314) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |            |              |
|--|----------|---|-------|----------|--|-------|----------|---------------------|-------|----------|------------------------|------------|--------------|
| Ammunition<br>Cost Elements                | ID<br>CD | FY 96   |       |          | FY   |       |          | FY 98               |       |          | FY 99                  |            |              |
|  |          | TotalCost   | Qty   | UnitCost | TotalCost  | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty        | UnitCost     |
|  |          | \$000   | x1000 | \$       | \$000  | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000      | \$           |
| HARDWARE                                   |          |   |       |          |  |       |          |                     |       |          |                        |            |              |
| 1. Cap Blasting: Non-electric,30 min delay |          |   |       |          |  |       |          |                     |       |          | 1716                   | 156        | 11.00        |
| <b>SUBTOTAL</b>                            |          |   |       |          |  |       |          |                     |       |          | <b>1716</b>            |            |              |
| PRODUCTION SUPPORT                         |          |   |       |          |  |       |          |                     |       |          |                        |            |              |
| 1. PRODUCTION ENGINEERING                  |          |   |       |          |  |       |          |                     |       |          | 225                    |            |              |
| 2. QUALITY ASSURANCE                       |          |   |       |          |  |       |          |                     |       |          | 65                     |            |              |
| 3. ACCEPTANCE TESTING                      |          |   |       |          |  |       |          |                     |       |          | 180                    |            |              |
| <b>SUBTOTAL</b>                            |          |   |       |          |  |       |          |                     |       |          | <b>245</b>             |            |              |
| <b>TOTAL</b>                               |          |   |       |          |  |       |          |                     |       |          | <b>2186</b>            | <b>156</b> | <b>14.01</b> |

| Exhibit P-5a, Budget Procurement History and Planning   |                         |                          |                 |            |                        |           |   |                  |                  | Date:      |               |
|---|-------------------------|--------------------------|-----------------|------------|------------------------|-----------|---|------------------|------------------|------------|---------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION /Ammunition /<br>41472790 |                         |                          |                 |            | Weapon System Type:    |           | P-1 Line Item Nomenclature:<br>Cap Blasting, Non-Electric, 20 Minute Delay (E81314) |                  |                  |            | February 1998 |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$  | Specs Avail Now? | Date Revsn Avail | Issue Date |               |
| 1. Cap Blasting: Non-elec,30 min delay, XM18<br>FY 99   | TBS                     | C/FP                     | ARDEC           | Mar-99     | Oct-99                 | 156       | 11.00   | No               |                  | Oct-98     |               |
| REMARK  |                         |                          |                 |            |                        |           |   |                  |                  |            |               |





| Exhibit P-40, Budget Item Justification Sheet   |  |              |                    |         |                                 |   |         |         |         |         | Date:<br>February 1998 |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|---|--|--------------|--------------------|---------|---------------------------------|---|---------|---------|---------|---------|------------------------|------------|-----------------------|--|--------------|--|---------|-------------------------------------|------|--|--|--|--------|-----------------|--|--|--------|---------|--|--|--------|--------------------|---------|-------------------------------------|-----|--|--|--|-------|-----------------|--|--|-------|---------|--|--|-------|--------------------|--|--|------|--|--|--------------------------------|-----|--|--|----------------------|-------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support  |  |              |                    |         |                                 | P-1 Item Nomenclature:<br>LAYAWAY OF INDUSTRIAL FACILITIES (EP2000) |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Program Elements for Code B Items:  |  |              |                    | Code:   | Other Related Program Elements: |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   | Prior Years  | FY 1995      | FY 1996            | FY 1997 | FY 1998                         | FY 1999   | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete            | Total Prog |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Proc Qty  |  |              |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Gross Cost  | 470.3  | 32.5         | 12.7               | 21.1    | 16.4                            | 15.4  | 7.0     | 7.1     | 6.8     | 6.1     | 0.0                    | 595.4      |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Less PY Adv Proc  |  |              |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Plus CY Adv Proc  |  |              |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Net Proc (P-1)  | 470.3  | 32.5         | 12.7               | 21.1    | 16.4                            | 15.4  | 7.0     | 7.1     | 6.8     | 6.1     | 0.0                    | 595.4      |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Initial Spares  |  |              |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Total Proc Cost   | 470.3  | 32.5         | 12.7               | 21.1    | 16.4                            | 15.4  | 7.0     | 7.1     | 6.8     | 6.1     | 0.0                    | 595.4      |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Flyaway U/C   |  |              |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| Wpn Sys Proc U/C  |  |              |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| <p>DESCRIPTION: This line provides for the preserving, storing, and disposing of industrial facilities and equipment that are no longer required to support current production. Funding is required as follows:</p> <table style="width:100%; border: none;"> <thead> <tr> <th style="text-align: left;"><u>PROJECT NUMBER</u></th> <th style="text-align: left;"></th> <th style="text-align: right;"><u>FY 99</u></th> <th style="text-align: left;"></th> </tr> </thead> <tbody> <tr> <td>59X4050</td> <td>INDUSTRIAL OPERATIONS COMMAND (IOC)</td> <td style="text-align: right;">15.3</td> <td></td> </tr> <tr> <td></td> <td>LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT OWNED EQUIPMENT IN GOVERNMENT OWNED PLANTS</td> <td style="text-align: right;">( 9.9)</td> <td>DECONTAMINATION</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">( 3.5)</td> <td>LAYAWAY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">( 1.9)</td> <td>MODIFIED CARETAKER</td> </tr> <tr> <td>59X9589</td> <td>INDUSTRIAL OPERATIONS COMMAND (IOC)</td> <td style="text-align: right;">0.1</td> <td></td> </tr> <tr> <td></td> <td>LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT OWNED EQUIPMENT LOCATED IN CONTRACTOR PLANTS</td> <td style="text-align: right;">(0.0)</td> <td>DECONTAMINATION</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">(0.1)</td> <td>LAYAWAY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">(0.0)</td> <td>MODIFIED CARETAKER</td> </tr> <tr> <td></td> <td>TOTAL IOC LAYAWAY OF INDUSTRIAL FACILITIES</td> <td style="text-align: right;">15.4</td> <td></td> </tr> <tr> <td></td> <td>PROGRAM EXECUTIVE OFFICE (PEO)</td> <td style="text-align: right;">0.0</td> <td></td> </tr> <tr> <td></td> <td><b>TOTAL LAYAWAY</b></td> <td style="text-align: right;"><b>15.4</b></td> <td></td> </tr> </tbody> </table> <p>JUSTIFICATION: Funds are used for the protection and preservation of equipment and facilities no longer required for active production but must be retained for possible future peacetime or replenishment production needs. Included are those funds needed to cover the packaging, handling, and transportation (PCH&amp;T) costs for moving equipment to a disposal point or storage site; decontamination; and plant clearance requirements.</p> |  |              |                    |         |                                 |   |         |         |         |         |                        |            | <u>PROJECT NUMBER</u> |  | <u>FY 99</u> |  | 59X4050 | INDUSTRIAL OPERATIONS COMMAND (IOC) | 15.3 |  |  | LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT OWNED EQUIPMENT IN GOVERNMENT OWNED PLANTS | ( 9.9) | DECONTAMINATION |  |  | ( 3.5) | LAYAWAY |  |  | ( 1.9) | MODIFIED CARETAKER | 59X9589 | INDUSTRIAL OPERATIONS COMMAND (IOC) | 0.1 |  |  | LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT OWNED EQUIPMENT LOCATED IN CONTRACTOR PLANTS | (0.0) | DECONTAMINATION |  |  | (0.1) | LAYAWAY |  |  | (0.0) | MODIFIED CARETAKER |  | TOTAL IOC LAYAWAY OF INDUSTRIAL FACILITIES | 15.4 |  |  | PROGRAM EXECUTIVE OFFICE (PEO) | 0.0 |  |  | <b>TOTAL LAYAWAY</b> | <b>15.4</b> |  |
| <u>PROJECT NUMBER</u>   |  | <u>FY 99</u> |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| 59X4050   | INDUSTRIAL OPERATIONS COMMAND (IOC)  | 15.3         |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   | LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT OWNED EQUIPMENT IN GOVERNMENT OWNED PLANTS   | ( 9.9)       | DECONTAMINATION    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   |  | ( 3.5)       | LAYAWAY            |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   |  | ( 1.9)       | MODIFIED CARETAKER |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
| 59X9589   | INDUSTRIAL OPERATIONS COMMAND (IOC)  | 0.1          |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   | LAYAWAY AND/OR REDISTRIBUTION OF GOVERNMENT OWNED EQUIPMENT LOCATED IN CONTRACTOR PLANTS | (0.0)        | DECONTAMINATION    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   |  | (0.1)        | LAYAWAY            |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   |  | (0.0)        | MODIFIED CARETAKER |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   | TOTAL IOC LAYAWAY OF INDUSTRIAL FACILITIES   | 15.4         |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   | PROGRAM EXECUTIVE OFFICE (PEO)   | 0.0          |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |
|   | <b>TOTAL LAYAWAY</b>   | <b>15.4</b>  |                    |         |                                 |   |         |         |         |         |                        |            |                       |  |              |  |         |                                     |      |  |  |  |        |                 |  |  |        |         |  |  |        |                    |         |                                     |     |  |  |  |       |                 |  |  |       |         |  |  |       |                    |  |  |      |  |  |                                |     |  |  |                      |             |  |

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

Date  
February 1998

|  |      |  |  |
|--|------|--|--|
| Appropriation / Budget Activity/Serial No.<br>PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support |      | P-1 Item Nomenclature<br>LAYAWAY OF INDUSTRIAL FACILITIES (EP2000) |  |
| Program Elements for Code B Items  | Code | Other Related Program Elements                                     |  |

| <u>LOCATION</u>   | <u>PROJECT TITLE</u>   | <u>PROJECT</u> | <u>FY 1999</u> |
|---|--|----------------|----------------|
| Iowa Army Ammunition Plant (AAP), Milan AAP, Lone Star AAP, Holston AAP | Retain (RT) - Layaway (Lwy) Minor Efforts  | 59X8000        | .200           |
| Milan AAP, Lone Star AAP, Iowa AAP, Lake City AAP                       | Downsize (DS) - Packaging, Crating, Handling, and Transportation (PCH&T) (Various)   | 59X8200        | .102           |
| Badger AAP Baraboo, WI  | DS - Disposal of Facilities  | 5998907        | 1.614          |
| Holston AAP Kingsport, TN   | DS - Safety - Asbestos Removal, Plant-Wide   | 5998708        | 1.169          |
| Holston AAP Kingsport, TN   | RT - Lwy, Decontaminate, and Preserve Research Department Explosive/High Melt Explosive (RDX/HMX), Acid Production Equipment, and Support Facilities | 5998905        | 6.714          |



| Exhibit P-40C Budget Item Justification Sheet                      |  |   | Date           |
|--|--|---|----------------|
| Appropriation / Budget Activity/Serial No.                         |  | P-1 Item Nomenclature                     |                |
| PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support |  | LAYAWAY OF INDUSTRIAL FACILITIES (EP2000) |                |
| Program Elements for Code B Items                                  | Code   | Other Related Program Elements            |                |
| <u>LOCATION</u>  | <u>PROJECT TITLE</u>   | <u>PROJECT</u>                            | <u>FY 1999</u> |
| Joliet AAP<br>Joliet, IL   | DS - Transition Load, Assemble, and Pack (LAP) Facility in Accordance with Public Law (PL) 104-106 | 5998906                                   | 1.618          |
| Lake City AAP<br>Independence, MO                                  | DS - Transition to Modified Caretaker, Phase 3   | 5998921                                   | 1.873          |
| Longhorn AAP<br>Marshall, TX                                       | DS - Disposal of Facilities  | 5998908                                   | 1.997          |
| Olin, Alliant,<br>KDI Precision<br>Products                        | RT - Lwy Minor Efforts Under \$50,000  | 59X9000                                   | .075           |
| <b>T O T A L</b>   |  |   | <b>15.362</b>  |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 30MM, ALL TYPES (ER8120)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 207.4       | 20.1    | 4.2     | 13.0    | 10.1    | 9.1     | 10.7    | 9.7     | 9.9     | 10.0    | 0.0         | 304.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 207.4       | 20.1    | 4.2     | 13.0    | 10.1    | 9.1     | 10.7    | 9.7     | 9.9     | 10.0    | 0.0         | 304.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 207.4       | 20.1    | 4.2     | 13.0    | 10.1    | 9.1     | 10.7    | 9.7     | 9.9     | 10.0    | 0.0         | 304.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes 30MM ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |        | P-1 Line Item Nomenclature:<br>CTG, 30MM, ALL TYPES (ER8120) |              |        | Weapon System Type: |              |        | Date:<br>February 1998 |              |        |          |
|---|--|--|--------------|--------|--|--------------|--------|---------------------|--------------|--------|------------------------|--------------|--------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |        |  | <b>FY 97</b> |        |                     | <b>FY 98</b> |        |                        | <b>FY 99</b> |        |          |
|   |  | CD   | TotalCost    | Qty    | UnitCost   | TotalCost    | Qty    | UnitCost            | TotalCost    | Qty    | UnitCost               | TotalCost    | Qty    | UnitCost |
|   |  |  | \$000        | Each   | \$   | \$000        | Each   | \$                  | \$000        | Each   | \$                     | \$000        | Each   | \$       |
| CTG 30MM HEDP M789                                |  |  |              |        |  | 9978         | 258830 | 38.55               |              |        |                        |              |        |          |
| CTG 30MM TP M788                                  |  |  | 4169         | 312510 | 13.34  | 2999         | 299310 | 10.02               | 10125        | 939000 | 10.78                  | 9061         | 760000 | 11.92    |
| <b>TOTAL</b>                                      |  |  | 4169         |        |  | 12977        |        |                     | 10125        |        |                        | 9061         |        |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 30MM HEDP M789 (E09900)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 3491        |         |         | 259     |         |         | 18      |         |         |         |             | 3768       |
| Gross Cost       | 144.0       | 0.0     | 0.0     | 10.0    | 0.0     | 0.0     | 1.1     | 0.0     | 0.0     | 0.0     | 0.0         | 155.1      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 144.0       | 0.0     | 0.0     | 10.0    | 0.0     | 0.0     | 1.1     | 0.0     | 0.0     | 0.0     | 0.0         | 155.1      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 144.0       | 0.0     | 0.0     | 10.0    | 0.0     | 0.0     | 1.1     | 0.0     | 0.0     | 0.0     | 0.0         | 155.1      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M789 lightweight 30MM high explosive-dual purpose (HEDP) cartridge is comprised of a steel projectile body loaded with HMX explosive and spin-compensated shaped charged liner, an M759 point detonating fuze, and an aluminum cartridge case. It is designed for use in the M230 automatic cannon. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a war reserve item used for combat; procurements will be used to build the war reserve stockpile.

**TYPE CLASSIFICATION DATE:**

1962

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG 30MM HEDP M789 (E09900) |              |        | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|--------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |        |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty    | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$   | \$000        | Each   | \$                  | \$000        | Each | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |        |                     |              |      |                        |              |      |          |
| Load, Assemble and Pack                           |  |  |              |      |  | 6854         | 258830 | 26.48               |              |      |                        |              |      |          |
| PBXN 5 Type II Class 3                            |  |  |              |      |  | 1255         | 17239  | 72.78               |              |      |                        |              |      |          |
| PBXN 5 Type I Class 3                             |  |  |              |      |  | 11           | 156    | 72.78               |              |      |                        |              |      |          |
| *RDX Type II Class 7                              |  |  |              |      |  |              | 78     | 4.73                |              |      |                        |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |  | 8120         |        |                     |              |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |        |                     |              |      |                        |              |      |          |
| Production Engineering                            |  |  |              |      |  | 371          |        |                     |              |      |                        |              |      |          |
| Quality Assurance                                 |  |  |              |      |  | 11           |        |                     |              |      |                        |              |      |          |
| Acceptance Testing                                |  |  |              |      |  | 89           |        |                     |              |      |                        |              |      |          |
| Interim Transportation                            |  |  |              |      |  | 77           |        |                     |              |      |                        |              |      |          |
| Industrial Stock Support                          |  |  |              |      |  | 321          |        |                     |              |      |                        |              |      |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |      |  | 989          |        |                     |              |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |  | 1858         |        |                     |              |      |                        |              |      |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |  |              |        |                     |              |      |                        |              |      |          |
| *Government Furnished Material                    |  |  |              |      |  |              |        |                     |              |      |                        |              |      |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |      |  |              |        |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | 9978         |        | 38.55               |              |      |                        |              |      |          |

| Exhibit P-5a, Budget Procurement History and Planning                                    |  |                          |                 |            |                        |          |              |  |                  | Date:          |  |
|--|--|--------------------------|-----------------|------------|------------------------|----------|--------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |  |                          |                 |            | Weapon System Type:    |          |              | P-1 Line Item Nomenclature:<br>CTG 30MM HEDP M789 (E09900) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| Load, Assemble and Pack<br>FY 97   | Alliant Tech Sys, Inc<br>New Brighton, MN      | C/FP                     | IOC             | Sep-97     | Aug-98                 | 258830   | 26.48        | Yes  |                  | Jun-97         |  |
| PBXN 5 Type II Class 3<br>FY 97  | Holston Defense (Holston AAP)<br>Kingsport, TN | SS/CPFF                  | IOC             | Oct-97     | Nov-97                 | 17239    | 72.78        | Yes  |                  | Jul-97         |  |
| PBXN 5 Type I Class 3<br>FY 97   | Holston Defense (Holston AAP)<br>Kingsport, TN | SS/CPFF                  | IOC             | Oct-97     | Nov-97                 | 156      | 72.78        | Yes  |                  | Jul-97         |  |
| *RDX Type II Class 7<br>FY 97  | Stock Issue                                    | N/A                      | N/A             | N/A        | N/A                    | 78       | N/A          | N/A  |                  | N/A            |  |
| <b>REMARKS:</b> TBS - To Be Selected<br>*Government Furnished Material                   |  |                          |                 |            |                        |          |              |  |                  |                |  |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 30MM TP M788 (E10100)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 5334        | 1617    | 313     | 299     | 939     | 760     | 795     | 795     | 795     | 795     |             | 12442      |
| Gross Cost       | 61.2        | 20.1    | 4.2     | 3.0     | 10.1    | 9.1     | 9.6     | 9.7     | 9.9     | 10.0    | 0.0         | 146.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 61.2        | 20.1    | 4.2     | 3.0     | 10.1    | 9.1     | 9.6     | 9.7     | 9.9     | 10.0    | 0.0         | 146.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 61.2        | 20.1    | 4.2     | 3.0     | 10.1    | 9.1     | 9.6     | 9.7     | 9.9     | 10.0    | 0.0         | 146.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 30mm Linked Target Practice (TP) M788 cartridge is an electric primed aluminum cased cartridge which is used in the 30mm M230 chain gun weapon system. The system is used as the secondary armament system on the Apache Advanced Attack Helicopter (AH-64). This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1982



| Exhibit P-5, Weapon<br>Ammo Cost Analysis |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |           |        | P-1 Line Item Nomenclature:<br>CTG 30MM TP M788 (E10100) |           |        | Weapon System Type: |           |        | Date:<br>February 1998 |           |        |          |
|---|--|--|-----------|--------|--|-----------|--------|---------------------|-----------|--------|------------------------|-----------|--------|----------|
| Ammunition<br>Cost Elements               |  | ID   | FY 96     |        |  | FY 97     |        |                     | FY 98     |        |                        | FY 99     |        |          |
|   |  | CD   | TotalCost | Qty    | UnitCost   | TotalCost | Qty    | UnitCost            | TotalCost | Qty    | UnitCost               | TotalCost | Qty    | UnitCost |
|   |  |  | \$000     | Each   | \$   | \$000     | Each   | \$                  | \$000     | Each   | \$                     | \$000     | Each   | \$       |
| Complete Round                            |  |  | 3274      | 312510 | 10.48  | 2441      | 299310 | 8.16                | 8737      | 939000 | 9.31                   | 8482      | 760000 | 11.16    |
| SubTotal AMMO Hardware                    |  |  | 3274      |        |  | 2441      |        |                     | 8737      |        |                        | 8482      |        |          |
| Production Support Costs                  |  |  |           |        |  |           |        |                     |           |        |                        |           |        |          |
| Production Engineering                    |  |  | 101       |        |  | 112       |        |                     | 893       |        |                        | 398       |        |          |
| Quality Assurance                         |  |  | 5         |        |  | 3         |        |                     | 22        |        |                        | 11        |        |          |
| Acceptance Testing                        |  |  | 38        |        |  | 27        |        |                     | 100       |        |                        |           |        |          |
| Interim Transportation                    |  |  | 12        |        |  | 23        |        |                     | 63        |        |                        |           |        |          |
| Industrial Stock Support                  |  |  | 141       |        |  | 96        |        |                     | 310       |        |                        | 170       |        |          |
| CAWCF Gain/Loss Surcharge                 |  |  | 598       |        |  | 297       |        |                     |           |        |                        |           |        |          |
| SubTotal Prod. Support                    |  |  | 895       |        |  | 558       |        |                     | 1388      |        |                        | 579       |        |          |
| TOTAL                                     |  |  | 4169      |        | 13.34  | 2999      |        | 10.02               | 10125     |        | 10.78                  | 9061      |        | 11.92    |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 30MM TP M788 (E10100)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                   | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Complete Round<br>FY 96            | Alliant Tech Sys, Inc<br>New Brighton, MN | C/FP                     | IOC             | Aug-96     | Jan-97                 | 312510   | 10.48        | Yes              |                  |                |
| FY 97                              | Alliant Tech Sys, Inc<br>New Brighton, MN | C/FP                     | IOC             | Aug-97     | Jan-98                 | 299310   | 8.16         | Yes              |                  | May-97         |
| FY 98                              | TBS                                       | C/FP                     | IOC             | Mar-98     | Mar-99                 | 939000   | 9.31         | Yes              |                  | Oct-97         |
| FY 99                              | TBS                                       | C/FP                     | IOC             | Mar-99     | Mar-00                 | 760000   | 11.16        | Yes              |                  | Oct-98         |

REMARKS: TBS - To Be Selected

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |     |      |                |                       |                     | P-1 Item Nomenclature: CTG 30MM TP M788 (E10100) |     |      |      |      |     |     |     |     |     |     |     |                  | Date: February 1998 |      |      |           |     |      |
|---------------------------------------|-----|-----|------|----------------|-----------------------|---------------------|--|-----|------|------|------|-----|-----|-----|-----|-----|-----|-----|------------------|---------------------|------|------|-----------|-----|------|
| COST ELEMENTS                         | MFR | FY  | SERV | PROC QTY x1mil | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98                                   |     |      |      |      |     |     |     |     |     |     |     | Fiscal Year 99   |                     |      |      | L A T E R |     |      |
|                                       |     |     |      |                |                       |                     | Calendar Year 98                                 |     |      |      |      |     |     |     |     |     |     |     | Calendar Year 99 |                     |      |      |           |     |      |
|                                       |     |     |      |                |                       |                     | OCT  | NOV | DEC  | JAN  | FEB  | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT              | NOV                 | DEC  | JAN  |           | FEB | MAR  |
| Complete Round                        |     |     |      |                |                       |                     |  |     |      |      |      |     |     |     |     |     |     |     |                  |                     |      |      |           |     |      |
|                                       | 1   | 96P | A    | 0.31           | 0.08                  | 0.23                |  |     | 0.10 | 0.10 | 0.03 |     |     |     |     |     |     |     |                  |                     |      |      |           |     |      |
|                                       | 1   | 97  | A    | 0.30           |                       | 0.30                |  |     |      | 0.15 | 0.15 |     |     |     |     |     |     |     |                  |                     |      |      |           |     |      |
|                                       | 2   | 98  | A    | 0.94           |                       | 0.94                |  |     |      |      |      |     |     |     |     |     |     |     | 0.25             | 0.25                | 0.25 | 0.19 |           |     |      |
|                                       | 2   | 99  | A    | 0.76           |                       | 0.76                |  |     |      |      |      |     |     |     |     |     |     |     |                  |                     |      |      |           |     | 0.76 |

  

| 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   | Alliant Tech, MN | 0.05             | 0.12  | 0.3  |            |            | INITIAL         | 6            | 6                | 12                 | 18      |  |
| 2   | To Be Selected   | 0.05             | 0.12  | 0.3  |            |            | REORDER         | 6            | 4                | 12                 | 16      |  |
|     |                  |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | INITIAL         |              |                  |                    |         |  |
|     |                  |                  |       |      |            |            | REORDER         |              |                  |                    |         |  |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG, 40MM, ALL TYPES (ER8001)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 504.4       | 32.3    | 48.9    | 32.1    | 30.5    | 35.6    | 41.6    | 44.3    | 44.1    | 49.1    | 0.0         | 862.9      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 504.4       | 32.3    | 48.9    | 32.1    | 30.5    | 35.6    | 41.6    | 44.3    | 44.1    | 49.1    | 0.0         | 862.9      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 504.4       | 32.3    | 48.9    | 32.1    | 30.5    | 35.6    | 41.6    | 44.3    | 44.1    | 49.1    | 0.0         | 862.9      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes 40MM ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG, 40MM, ALL TYPES (ER8001) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| CTG 40MM TP M918 LINKED F/MK19 MG                 |  |  | 33540        | 1940  | 17.29  | 30887        | 2124  | 14.54               | 23888        | 1483  | 16.11                  | 30491        | 2000  | 15.25    |
| CTG 40MM PRACTICE M781                            |  |  | 1835         | 316   | 5.81   | 1241         | 585   | 2.12                | 5149         | 2165  | 2.38                   | 2698         | 1053  | 2.56     |
| CTG 40MM PRACTICE M385A1                          |  |  |              |       |  |              |       |                     |              |       |                        | 790          | 57    | 13.84    |
| CTG 40MM NON-LETHAL XM1006                        |  |  |              |       |  |              |       |                     | 1213         | 18    | 67                     | 1639         | 40    |          |
| CTG 40MM HEDP M430 F/MK 19                        |  |  | 13496        | 746   | 18.08  |              |       |                     |              |       |                        |              |       |          |
| CTG 40MM FOAM BATON NON-LETHAL                    |  |  |              |       |  |              |       |                     | 111          | 11    | 10                     |              |       |          |
| CTG 40MM NON-LETHAL CROWD DISPER                  |  |  |              |       |  |              |       |                     | 142          | 14    | 10                     |              |       |          |
| <b>TOTAL</b>                                      |  |  | <b>48871</b> |       |  | <b>32128</b> |       |                     | <b>30503</b> |       |                        | <b>35618</b> |       |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 5784        | 737     | 1940    | 2124    | 1483    | 2000    | 2365    | 2491    | 2439    | 2437    |             | 23800      |
| Gross Cost       | 80.6        | 12.8    | 33.5    | 30.9    | 23.9    | 30.5    | 35.3    | 37.7    | 37.4    | 38.6    | 0.0         | 361.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 80.6        | 12.8    | 33.5    | 30.9    | 23.9    | 30.5    | 35.3    | 37.7    | 37.4    | 38.6    | 0.0         | 361.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 80.6        | 12.8    | 33.5    | 30.9    | 23.9    | 30.5    | 35.3    | 37.7    | 37.4    | 38.6    | 0.0         | 361.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 40mm Target Practice (TP) cartridge for the MK19 Machine Gun is a high velocity training projectile with realistic signature effects providing sufficient flash, smoke, and sound upon impact to be seen/heard at a 1200 meter minimum range under standard atmospheric conditions and level terrain. In addition to providing audible/visual signature for day or night firing, the TP for MK19 gun will minimize hazard to troops in the training area. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals. This cartridge is required since firing the standard service 40mm high-explosive dual-purpose (HEDP) M430 cartridge is prohibited at many training ranges. The M918 allows frequent and safe MK19 MOD 3 40mm Grenade Machine Gun and M129 Grenade Launcher training.

**TYPE CLASSIFICATION DATE:**

1985

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 40MM TP M918 LINKED F/MK19 MG<br>(E71100) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |              |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|--------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |              |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost     |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$           |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |              |
| Load, Assemble and Pack                           |  |  | 5652         | 1940  | 2.91   | 5683         | 2124  | 2.67                | 5691         | 1483  | 3.84                   | 8678         | 2000  | 4.34         |
| Proj Assy   |  |  | 13914        | 1999  | 6.96   | 13839        | 2188  | 6.32                | 8185         | 1527  | 5.36                   | 11102        | 2060  | 5.39         |
| Ctg Case M169                                     |  |  | 1854         | 2018  | 0.92   | 1743         | 2209  | 0.79                | 1780         | 1542  | 1.15                   | 2602         | 2080  | 1.25         |
| *Prop M2 SP .019 (LB)                             |  |  | 760          | 29    | 26.12  | 699          | 32    | 21.93               | 553          | 22    | 24.85                  | 596          | 30    | 19.87        |
| M550 Escape Assy                                  |  |  | 3039         | 2044  | 1.49   | 3018         | 2237  | 1.35                | 2614         | 1562  | 1.67                   | 3433         | 2106  | 1.63         |
| Det Stab M55                                      |  |  | 665          | 2047  | 0.32   | 740          | 2241  | 0.33                | 589          | 1564  | 0.38                   | 1206         | 2110  | 0.57         |
| Link M16A2  |  |  | 463          | 2057  | 0.22   | 445          | 2252  | 0.20                | 1202         | 1572  | 0.76                   | 1630         | 2120  | 0.77         |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>26347</b> |       |  | <b>26167</b> |       |                     | <b>20614</b> |       |                        | <b>29247</b> |       |              |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |              |
| Production Engineering                            |  |  | 817          |       |  | 1088         |       |                     | 2107         |       |                        | 941          |       |              |
| Quality Assurance                                 |  |  | 37           |       |  | 37           |       |                     | 52           |       |                        | 8            |       |              |
| Acceptance Testing                                |  |  | 303          |       |  | 285          |       |                     | 237          |       |                        | 3            |       |              |
| Interim Transportation                            |  |  | 100          |       |  | 249          |       |                     | 148          |       |                        | 302          |       |              |
| Industrial Stock Support                          |  |  | 1120         |       |  |              |       |                     | 730          |       |                        | 586          |       |              |
| CAWCF Gain/Loss Surcharge                         |  |  | 4816         |       |  | 3061         |       |                     |              |       |                        |              |       |              |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>7193</b>  |       |  | <b>4720</b>  |       |                     | <b>3274</b>  |       |                        | <b>1840</b>  |       |              |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |              |
| *Government Furnished Material                    |  |  |              |       |  |              |       |                     |              |       |                        | -596         |       |              |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |  |              |       |                     |              |       |                        | <b>-596</b>  |       |              |
| <b>TOTAL</b>                                      |  |  | <b>33540</b> |       | <b>17.29</b>   | <b>30887</b> |       | <b>14.54</b>        | <b>23888</b> |       | <b>16.11</b>           | <b>30491</b> |       | <b>15.25</b> |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 40MM TP M918 LINKED F/MK19 MG (E71100)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                   | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Martin Marietta (Milan AAP)<br>Milan, TN  | SS/CPAF                  | IOC             | Jul-96     | May-97                 | 1940      | 2.91         |                  |                  |                |
| FY 97                              | General Dynamics (Milan AAP)<br>Milan, TN | SS/CPAF                  | IOC             | Apr-97     | Aug-98                 | 2124      | 2.67         | Yes              |                  | Jan-97         |
| FY 98                              | General Dynamics (Milan AAP)<br>Milan, TN | SS/CPAF                  | IOC             | Mar-98     | Mar-00                 | 1483      | 3.84         | Yes              |                  | Oct-97         |
| FY 99                              | General Dynamics (Milan AAP)<br>Milan, TN | SS/CPAF                  | IOC             | Dec-98     | Apr-00                 | 2000      | 4.34         | Yes              |                  | Oct-98         |
| Proj Assy**<br>FY96                | A&A Electronic<br>Auburndale, FL          | C/FP                     | IOC             | Jun-96     | Jan-97                 | 1999      | 6.96         | Yes              |                  |                |
| FY 97                              | Dayron Corp<br>Orlando, FL                | C/FP                     | IOC             | Jul-97     | Oct-97                 | 2188      | 6.32         | Yes              |                  | Oct-96         |
| FY 98                              | TBS                                       | C/FP                     | IOC             | Sep-98     | Mar-99                 | 1527      | 5.36         | Yes              |                  | Oct-97         |
| FY 99                              | TBS                                       | C/FP                     | IOC             | Jul-99     | Jan-00                 | 2060      | 5.39         | Yes              |                  | Oct-98         |
| Ctg Case M169<br>FY 96             | Amron Corp<br>Waukesha, WI                | SS/FP                    | IOC             | Sep-96     | Nov-96                 | 2018      | 0.92         | Yes              |                  |                |
| FY 97                              | Amron Corp<br>Waukesha, WI                | SS/FP                    | IOC             | Jul-97     | May-98                 | 2209      | 0.79         | Yes              |                  | Apr-97         |
| FY 98                              | Amron Corp<br>Waukesha, WI                | SS/FP                    | IOC             | Mar-98     | Mar-99                 | 1542      | 1.15         | Yes              |                  | Oct-97         |
| FY 99                              | Amron Corp<br>Waukesha, WI                | SS/FP                    | IOC             | Mar-99     | Jan-00                 | 2080      | 1.25         | Yes              |                  | Oct-98         |

REMARKS: TBS - To be Selected  
 \*\*Pacing Component

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **CTG 40MM TP M918 LINKED F/MK19 MG (E71100)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| *Prop M2 SP .019 (LB)<br>FY 96     | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Apr-96     | Oct-96                 | 29           | 26.12           |                  |                  |                |
| FY 97                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Jul-97     | Nov-97                 | 32           | 21.93           | Yes              |                  | Apr-97         |
| FY 98                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/FP                    | IOC             | Dec-97     | Apr-98                 | 22           | 24.85           | Yes              |                  | Oct-97         |
| FY 99                              | Stock Issue                                   | N/A                      | N/A             | N/A        | N/A                    | 30           | N/A             | N/A              |                  | N/A            |
| M550 Escape Assy<br>FY 96          | Dayron Corp<br>Orlando, FL                    | SS/FP                    | IOC             | Sep-96     | Jan-97                 | 2044         | 1.49            | Yes              |                  |                |
| FY 97                              | Dayron Corp<br>Orlando, FL                    | SS/FP                    | IOC             | Jul-97     | Jan-98                 | 2237         | 1.35            | Yes              |                  | Apr-97         |
| FY 98                              | Dayron Corp<br>Orlando, FL                    | SS/FP                    | IOC             | Jul-98     | Jan-99                 | 1562         | 1.67            | Yes              |                  | Oct-97         |
| FY 99                              | Dayron Corp<br>Orlando, FL                    | SS/FP                    | IOC             | Jul-99     | Jan-00                 | 2106         | 1.63            | Yes              |                  | Oct-98         |

REMARKS: \*Government Furnished Material

| Exhibit P-5a, Budget Procurement History and Planning                                    |  |                          |                 |            |                        |           |              |                  |                  | Date:   |
|--|--|--------------------------|-----------------|------------|------------------------|-----------|--------------|------------------|------------------|---|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |  |                          |                 |            |                        |           |              |                  |                  | February 1998   |
| Weapon System Type:  |  |                          |                 |            |                        |           |              |                  |                  | P-1 Line Item Nomenclature:<br>CTG 40MM TP M918 LINKED F/MK19 MG (E71100) |
| WBS Cost Elements:   | Contractor and Location                          | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date  |
| Det Stab M55   |  |                          |                 |            |                        |           |              |                  |                  |   |
| FY 96  | Day & Zimmerman (Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Mar-96     | Oct-96                 | 2047      | 0.32         |                  |                  |   |
| FY 97  | Day & Zimmerman (Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Jul-97     | Feb-98                 | 2241      | 0.33         | Yes              |                  | Apr-97  |
| FY 98  | Day & Zimmerman (Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Mar-98     | Oct-98                 | 1564      | 0.38         | Yes              |                  | Oct-97  |
| FY 99  | Day & Zimmerman (Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Apr-99     | Oct-99                 | 2110      | 0.57         | Yes              |                  | Oct-98  |
| Link M16A2   |  |                          |                 |            |                        |           |              |                  |                  |   |
| FY 96  | Valentec Wells<br>Costa Mesa, CA                 | C/FP                     | IOC             | Apr-96     | Jan-97                 | 2057      | 0.22         |                  |                  |   |
| FY 97  | Valentec Wells<br>Costa Mesa, CA                 | C/FP                     | IOC             | Apr-97     | May-98                 | 2252      | 0.20         | Yes              |                  | Oct-96  |
| FY 98  | TBS  | C/FP                     | IOC             | Jul-98     | Jan-99                 | 1572      | 0.76         | Yes              |                  | Oct-97  |
| FY 99  | TBS  | C/FP                     | IOC             | Jul-99     | Jan-00                 | 2120      | 0.77         | Yes              |                  | Oct-98  |
| REMARKS: TBS - To be Selected  |  |                          |                 |            |                        |           |              |                  |                  |   |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 40MM PRACTICE M781 (E74200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 11393       | 1641    | 316     | 585     | 2165    | 1053    | 1505    | 1505    | 1505    | 1505    |             | 23173      |
| Gross Cost       | 23.6        | 6.2     | 1.8     | 1.2     | 5.1     | 2.7     | 3.7     | 3.8     | 3.8     | 3.8     | 0.0         | 55.7       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 23.6        | 6.2     | 1.8     | 1.2     | 5.1     | 2.7     | 3.7     | 3.8     | 3.8     | 3.8     | 0.0         | 55.7       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 23.6        | 6.2     | 1.8     | 1.2     | 5.1     | 2.7     | 3.7     | 3.8     | 3.8     | 3.8     | 0.0         | 55.7       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M781 practice cartridge replaced the M407 practice cartridge. The M781 is a low cost, unfuzed fixed round of practice ammunition ready for use as issued and is compatible with the M79 and M203 Grenade Launchers. The cartridge case is made of plastic material and the projectile is also plastic with an aluminum rotating band. The ogive is made of a frangible plastic material and contains a colored dye in granular form, the consistency of talcum powder, which is used to generate a signature. The propulsion system consists of a standard .38 caliber blank. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1978

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 40MM PRACTICE M781 (E74200) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Complete Round                                    |  |  | 1441         | 316   | 4.56   | 1052         | 585   | 1.80                | 4443         | 2165  | 2.05                   | 2329         | 1053  | 2.21     |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 1441         |       |  | 1052         |       |                     | 4443         |       |                        | 2329         |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 45           |       |  | 43           |       |                     | 454          |       |                        | 312          |       |          |
| Quality Assurance                                 |  |  | 2            |       |  | 1            |       |                     | 11           |       |                        | 11           |       |          |
| Acceptance Testing                                |  |  | 17           |       |  | 11           |       |                     | 51           |       |                        |              |       |          |
| Interim Transportation                            |  |  | 5            |       |  | 10           |       |                     | 32           |       |                        |              |       |          |
| Industrial Stock Support                          |  |  | 61           |       |  | 1            |       |                     | 158          |       |                        | 46           |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 264          |       |  | 123          |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 394          |       |  | 189          |       |                     | 706          |       |                        | 369          |       |          |
| <b>TOTAL</b>                                      |  |  | 1835         |       | 5.81   | 1241         |       | 2.12                | 5149         |       | 2.38                   | 2698         |       | 2.56     |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 40MM PRACTICE M781 (E74200)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location        | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--------------------------------|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Complete Round<br>FY 96            | Action Mfg<br>Philadelphia, PA | C/FP                     | IOC             | Nov-96     | Jul-97                 | 316          | 4.56            |                  |                  |                |
| FY 97                              | Action Mfg<br>Philadelphia, PA | C/FP                     | IOC             | Aug-97     | May-98                 | 585          | 1.80            | Yes              |                  | May-97         |
| FY 98                              | TBS                            | C/FP                     | IOC             | Aug-98     | Mar-99                 | 2165         | 2.05            | Yes              |                  | Oct-97         |
| FY 99                              | TBS                            | C/FP                     | IOC             | Aug-99     | Apr-00                 | 1053         | 2.21            | Yes              |                  | Oct-98         |

REMARKS: TBS - To Be Selected











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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ROCKET, HYDRA 70, ALL TYPES (E37300)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 648.6       | 107.8   | 27.0    | 27.3    | 36.4    | 126.1   | 120.2   | 118.6   | 119.6   | 121.4   | 0.0         | 1453.0     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 648.6       | 107.8   | 27.0    | 27.3    | 36.4    | 126.1   | 120.2   | 118.6   | 119.6   | 121.4   | 0.0         | 1453.0     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 648.6       | 107.8   | 27.0    | 27.3    | 36.4    | 126.1   | 120.2   | 118.6   | 119.6   | 121.4   | 0.0         | 1453.0     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes Rocket HYDRA 70 ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |    | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |       |          | P-1 Line Item Nomenclature:<br>ROCKET, HYDRA 70, ALL TYPES (E37300) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----|--|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |    | <b>FY 96</b>   |       |          | <b>FY 97</b>  |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
| ID  | CD | TotalCost  | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |    | \$000  | x1000 | \$       | \$000   | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000 | \$       |
|   |    |  |       |          | 16481   | 7     | 2384.38  |                     |       |          |                        |       |          |
|   |    | 5648   | 3     | 1602.84  | 10771   | 7     | 1602.84  |                     |       |          | 38077                  | 46    | 827.76   |
|   |    |  |       |          |   |       |          | 11231               | 14    | 783.39   | 12057                  | 17    | 709.24   |
|   |    | 21358  | 46    | 468.86   |   |       |          | 25200               | 45    | 555.09   | 75921                  | 154   | 492.99   |
| <b>TOTAL</b>                                      |    | 27006  |       |          | 27252   |       |          | 36431               |       |          | 126055                 |       |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ROCKET HYDRA 70 MPSM HE M261 WHD (E37327)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 89          |         |         | 7       |         |         |         |         |         |         |             | 96         |
| Gross Cost       | 81.5        | 0.0     | 0.0     | 16.5    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 98.0       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 81.5        | 0.0     | 0.0     | 16.5    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 98.0       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 81.5        | 0.0     | 0.0     | 16.5    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 98.0       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The HYDRA 70 Weapon System is a family of aerial rockets used by Army aircraft (APACHE, KIOWA WARRIOR, and COBRA) against area targets such as personnel, air defense systems, and materiel. The M261 Multipurpose Submunition (MPSM) warhead consists of a plastic nose cone assembly, an aluminum warhead case, an expulsion charge, and nine full caliber M73 submunitions with an M439 remote setable fuze. Each submunition has a copper shaped charge liner for armor penetration. The submunitions contain a ram air decelerator (RAD) stabilizing device and 0.2 pounds of Comp B-4 high explosive with the body wall scored internally to optimize fragment size against personnel and materiel. The M439 fuze is remotely set from the aircraft with time to target data. After firing, the fuze functions at the computer determined time to initiate the expulsion charge. Once the submunitions are ejected, the RAD's inflate and the arming sequence starts as the submunitions enter into a near vertical descent over the target area. Each submunition is fuzed with an M230 fuze which will function regardless of impact angle. M261 is mated to the MK66 Mod 3 rocket motor and is fired from either the M260 or M261 Light Weight Launcher. This item is Code A; approved for service use.

**JUSTIFICATION:**

This is a war reserve item; used only in combat. Procurement builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1985

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>ROCKET HYDRA 70 MPSM HE M261 WHD<br>(E37327) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$  | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| Load, Assemble, and Pack                          |  |  |              |      |   | 12152        | 6912 | 1758.17             |              |      |                        |              |      |          |
| MK90 Prop Grain                                   |  |  |              |      |   | 1260         | 7396 | 170.37              |              |      |                        |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |   | <b>13412</b> |      |                     |              |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| Production Engineering                            |  |  |              |      |   | 613          |      |                     |              |      |                        |              |      |          |
| Quality Assurance                                 |  |  |              |      |   | 19           |      |                     |              |      |                        |              |      |          |
| Acceptance Testing                                |  |  |              |      |   | 146          |      |                     |              |      |                        |              |      |          |
| Interim Transportation                            |  |  |              |      |   | 127          |      |                     |              |      |                        |              |      |          |
| Industrial Stock Support                          |  |  |              |      |   | 531          |      |                     |              |      |                        |              |      |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |      |   | 1633         |      |                     |              |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |   | <b>3069</b>  |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |   | <b>16481</b> |      | <b>2384.38</b>      |              |      |                        |              |      |          |



| Exhibit P-5a, Budget Procurement History and Planning   |   |                          |                 |            |                        |          |              |  |                  | Date:          |  |
|---|---|--------------------------|-----------------|------------|------------------------|----------|--------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |   |                          |                 |            | Weapon System Type:    |          |              | P-1 Line Item Nomenclature:<br>ROCKET HYDRA 70 MPSM HE M261 WHD (E37327) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| Load, Assemble, and Pack<br>FY 97   | Lockheed Martin<br>Burlington, VT             | C/FP                     | IOC             | Dec-96     | Nov-98                 | 6912     | 1758.17      | Yes  |                  | Oct-96         |  |
| MK90 Prop Grain<br>FY 97  | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Sep-97     | Oct-98                 | 7396     | 170.37       | Yes  |                  | Jul-97         |  |
| <b>REMARKS:</b> Lockheed-Martin Ordnance System was purchased by General Dynamics Ordnance Systems in Jan 97. FY97 program awarded as a performance specification requirement contract. |   |                          |                 |            |                        |          |              |  |                  |                |  |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ROCKET HYDRA 70 SMOKE M264 (E37330)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 2           |         | 3       | 7       |         |         |         |         |         |         |             | 12         |
| Gross Cost       | 2.1         | 0.7     | 5.6     | 10.8    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 19.2       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 2.1         | 0.7     | 5.6     | 10.8    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 19.2       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 2.1         | 0.7     | 5.6     | 10.8    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 19.2       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The HYDRA 70 Weapon System is a family of aerial rockets used by Army aircraft (APACHE, KIOWA WARRIOR, and COBRA) against area targets such as personnel, air defense systems, and materiel. The systems smoke rocket consists of the M264 red phosphorus (RP) warhead and the MK66 Mod 3 rocket motor. The warhead consists of a plastic nose cone assembly, an aluminum warhead case, a remote setable primary fuze (M439) with an umbilical cable, an expulsion charge, and 72 RP wedges. The M264 warhead uses RP because of its stability and improved performance as a screening agent in hot temperature conditions. The M264 is designed to provide longer stand-off range and integration with the M439 range setable fuze. The M439 fuze permits the firing aircraft to remain in defilade and place smoke at ranges up to 6 kilometers. The M264 replaces a similar rocket that consists of a M259 white phosphorus warhead and a MK40 rocket motor. This item is Code A, approved for service use.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. Procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**  
 July 1995

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>ROCKET HYDRA 70 SMOKE M264 (E37330) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$   | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Load, Assemble and Pack                           |  |  | 3825         | 3312 | 1154.90  | 7761         | 6720 | 1154.90             |              |      |                        |              |      |          |
| MK90 Prop Grain                                   |  |  | 673          | 3544 | 189.96   | 1366         | 7191 | 189.96              |              |      |                        |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>4498</b>  |      |  | <b>9127</b>  |      |                     |              |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Production Engineering                            |  |  | 186          |      |  | 378          |      |                     |              |      |                        |              |      |          |
| Quality Assurance                                 |  |  | 6            |      |  | 13           |      |                     |              |      |                        |              |      |          |
| Acceptance Testing                                |  |  | 49           |      |  | 99           |      |                     |              |      |                        |              |      |          |
| Interim Transportation                            |  |  | 43           |      |  | 87           |      |                     |              |      |                        |              |      |          |
| Industrial Stock Support                          |  |  | 1            |      |  |              |      |                     |              |      |                        |              |      |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 526          |      |  | 1067         |      |                     |              |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>811</b>   |      |  | <b>1644</b>  |      |                     |              |      |                        |              |      |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| ECP   |  |  | 339          |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal COST - Nonrecurring</b>               |  |  | <b>339</b>   |      |  |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | <b>5648</b>  |      | <b>1602.84</b>   | <b>10771</b> |      | <b>1602.84</b>      |              |      |                        |              |      |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: ROCKET HYDRA 70 SMOKE M264 (E37330)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Lockheed Martin<br>Burlington, VT             | C/FP                     | IOC             | Dec-96     | Nov-98                 | 3312     | 1154.90      |                  |                  |                |
| FY 97                              | Lockheed Martin<br>Burlington, VT             | C/FP                     | IOC             | Dec-96     | Dec-98                 | 6720     | 1154.90      | Yes              |                  | Sep-96         |
| MK90 Prop Grain<br>FY 96           | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Mar-96     | Nov-97                 | 3544     | 189.96       |                  |                  |                |
| FY 97                              | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Sep-97     | Nov-98                 | 7191     | 189.96       | Yes              |                  | Jun-97         |

**REMARKS:** Lockheed-Martin Ordnance Systems was purchased by General Dynamics Ordnance System in Jan 97. FY 96 and FY 97 program awarded as a performance specification requirement contract.



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ROCKET HYDRA 70 MPSM PRAC M267 (E37334)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 208         | 42      |         |         |         | 46      | 44      | 37      | 37      | 37      |             | 451        |
| Gross Cost       | 141.4       | 31.4    | 0.0     | 0.0     | 0.0     | 38.1    | 36.2    | 32.1    | 32.0    | 32.5    | 0.0         | 343.7      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 141.4       | 31.4    | 0.0     | 0.0     | 0.0     | 38.1    | 36.2    | 32.1    | 32.0    | 32.5    | 0.0         | 343.7      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 141.4       | 31.4    | 0.0     | 0.0     | 0.0     | 38.1    | 36.2    | 32.1    | 32.0    | 32.5    | 0.0         | 343.7      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The HYDRA 70 Weapon System is a family of aerial rockets used by Army aircraft (APACHE, KIOWA WARRIOR, and COBRA) against area targets such as personnel, air defense systems, and materiel. The M267 Multi-Purpose Submunition (MPSM) practice round is identical in operation to the M261 tactical warhead except that three M75 practice submunitions, with a flash powder smoke signature, take the place of the nine M73 submunitions. Six inert submunitions are used to complete the weight and balance requirements. The M267 uses the M439 remote fuze, is mated to the MK66 Mod 3 rocket motor with electromagnetic radiation protection, and is required to train with the fire control and rocket management systems on the COBRA and APACHE attack helicopters. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals. The M267 MPSM Practice round provides a cleaner, more effective rocket with which to train pilots.

**TYPE CLASSIFICATION DATE:**

1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>ROCKET HYDRA 70 MPSM PRAC M267<br>(E37334) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |       |               |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|-------|---------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |       |               |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty   | UnitCost      |
|   |  |  | \$000        | Each | \$  | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each  | \$            |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |       |               |
| Complete Round                                    |  |  |              |      |   |              |      |                     |              |      |                        | 35948        | 46000 | 781.48        |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |   |              |      |                     |              |      |                        | <b>35948</b> |       |               |
| <b>Production Support Costs</b>                   |  |  |              |      |   |              |      |                     |              |      |                        |              |       |               |
| Production Engineering                            |  |  |              |      |   |              |      |                     |              |      |                        | 170          |       |               |
| Quality Assurance                                 |  |  |              |      |   |              |      |                     |              |      |                        | 69           |       |               |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |   |              |      |                     |              |      |                        | <b>239</b>   |       |               |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |       |               |
| Material Change                                   |  |  |              |      |   |              |      |                     |              |      |                        | 1890         |       |               |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |      |   |              |      |                     |              |      |                        | <b>1890</b>  |       |               |
| <b>TOTAL</b>                                      |  |  |              |      |   |              |      |                     |              |      |                        | <b>38077</b> |       | <b>827.76</b> |



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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: ROCKET HYDRA 70 MPSM PRAC M267 (E37334)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                          | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Complete Round<br>FY 95            | Lockheed Martin<br>Burlington, VT                | C/FP                     | IOC             | Nov-95     | Feb-98                 | 42319    | 404.87       |                  |                  |                |
| FY 99***                           |  | C/FP                     | IOC             | Apr-99     | Feb-01                 | 46000    | 781.48       | Yes              |                  | Oct-98         |
| MK90 Prop Grain<br>FY 95<br>FY 99  | Alliant Tech Sys (Radford AAP)<br>Plant Procured | SS/CPAF                  | IOC             | Dec-94     | Jan-96                 | 45282    | 183.37       |                  |                  |                |
|                                    |  | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected  
 \*\*\*Complete Round  
 Lockheed-Martin Ordnance Systems was purchased by General Dynamics Ordnance Systems in Jan 97.







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 211         |         |         |         | 14      | 17      | 24      | 26      | 25      | 25      |             | 342        |
| Gross Cost       | 61.3        | 0.0     | 0.0     | 0.0     | 11.2    | 12.1    | 17.7    | 19.1    | 19.0    | 19.4    | 0.0         | 159.8      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 61.3        | 0.0     | 0.0     | 0.0     | 11.2    | 12.1    | 17.7    | 19.1    | 19.0    | 19.4    | 0.0         | 159.8      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 61.3        | 0.0     | 0.0     | 0.0     | 11.2    | 12.1    | 17.7    | 19.1    | 19.0    | 19.4    | 0.0         | 159.8      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The HYDRA-70 Weapon System is a family of aerial rockets used by Army Aircraft (APACHE, KIOWA WARRIOR, and COBRA) against area targets such as personnel, air defense systems, and materiel. The M151 HEPD is a unitary fragmenting 10 lb anti-personnel warhead with the M423 Point Detonating Fuze. The warhead consists of two main parts, the nose and the base, which is fabricated using nodular pearlitic malleable or ferritic malleable cast iron. The nose end of the warhead is threaded to receive the M423 fuze and is loaded with 2.3 lbs of Composition B4 explosive. The base section is fabricated from steel or cast iron and is threaded for attachment to the MK66 rocket motor. Upon detonation, the warhead fragments into thousands of small, high velocity fragments. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a war reserve item; used only in combat. The FY 99 procurement builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

26 February 1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>ROCKET HYDRA 70 HE/PD M151/M423<br>(E37335) |              |      | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |               |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|-------|------------------------|--------------|-------|---------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |               |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost      |
|   |  |  | \$000        | Each | \$   | \$000        | Each | \$                  | \$000        | Each  | \$                     | \$000        | Each  | \$            |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |      |                     |              |       |                        |              |       |               |
| Load, Assemble and Pack                           |  |  |              |      |  |              |      |                     | 6710         | 14336 | 468.04                 | 11837        | 17000 | 696.31        |
| MK90 Prop Grain                                   |  |  |              |      |  |              |      |                     | 2982         | 15340 | 194.38                 |              |       |               |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |  |              |      |                     | <b>9692</b>  |       |                        | <b>11837</b> |       |               |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |      |                     |              |       |                        |              |       |               |
| Production Engineering                            |  |  |              |      |  |              |      |                     | 990          |       |                        | 184          |       |               |
| Quality Assurance                                 |  |  |              |      |  |              |      |                     | 24           |       |                        | 35           |       |               |
| Acceptance Testing                                |  |  |              |      |  |              |      |                     | 111          |       |                        |              |       |               |
| Interim Transportation                            |  |  |              |      |  |              |      |                     | 70           |       |                        |              |       |               |
| Industrial Stock Support                          |  |  |              |      |  |              |      |                     | 344          |       |                        | 1            |       |               |
| CAWCF Gain/Loss Surcharge                         |  |  |              |      |  |              |      |                     |              |       |                        |              |       |               |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |  |              |      |                     | <b>1539</b>  |       |                        | <b>220</b>   |       |               |
| <b>TOTAL</b>                                      |  |  |              |      |  |              |      |                     | <b>11231</b> |       | <b>783.39</b>          | <b>12057</b> |       | <b>709.24</b> |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: ROCKET HYDRA 70 HE/PD M151/M423 (E37335)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 98   | TBS                     | C/FP                     | IOC             | Apr-98     | Feb-00                 | 14336    | 468.04       | Yes              |                  | Oct-97         |
| FY 99***                           | TBS                     | C/FP                     | IOC             | Apr-99     | Feb-01                 | 17000    | 696.31       | Yes              |                  | Oct-98         |
| MK90 Prop Grain<br>FY 98           | TBS                     | C/FP                     | IOC             | Mar-98     | Aug-99                 | 15340    | 194.38       | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured          | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected  
 \*\*\*Complete Round









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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 937         | 172     | 46      |         | 45      | 154     | 136     | 136     | 136     | 136     |             | 1898       |
| Gross Cost       | 295.6       | 75.7    | 21.4    | 0.0     | 25.2    | 75.9    | 66.2    | 67.4    | 68.6    | 69.5    | 0.0         | 765.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 295.6       | 75.7    | 21.4    | 0.0     | 25.2    | 75.9    | 66.2    | 67.4    | 68.6    | 69.5    | 0.0         | 765.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 295.6       | 75.7    | 21.4    | 0.0     | 25.2    | 75.9    | 66.2    | 67.4    | 68.6    | 69.5    | 0.0         | 765.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The HYDRA 70 Weapon System is a family of aerial rockets used by Army aircraft (APACHE, KIOWA WARRIOR, and COBRA) against area targets such as personnel, air defense systems, and materiel. The M274 warhead is a smoke/flash signature practice warhead used for pilot/gunner training missions and consists of a cast iron warhead modified with vent holes; and an aluminum nose cap with firing pin, an M423 fuze safe and arming device; and a smoke/flash cartridge containing a mixture of potassium perchlorate and aluminum powder. The M274 with the new MK66 Mod 3 rocket motor with electromagnetic radiation protection can be fired by all aircraft. It is a key rocket due to its low cost, simple and reliable operation, day and night signature for scoring pilot proficiency, and non-hazardous dud feature which enables usage on new multipurpose range complexes. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. Each pilot must fire live rockets to acquire and maintain attack helicopter gunnery skills. FY 99 procurement supports all training schedules, initial qualification training for aviators, and builds a depot level in accordance with the Army's procurement goals. The M274 Signature Practice Rocket is the preferred training munition at all ranges. The M274 Signature Practice Rocket is safer to use, is cheaper, and has less of an environmental impact than high explosive rockets. At the same time, it allows peacetime training with rockets compatible with the new sterile, instrumented training ranges equipped with advanced sensors.

**TYPE CLASSIFICATION DATE:**  
1986

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>ROCKET HYDRA 70 SIG PRAC M274<br>(E37337) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 8394         | 46    | 184.27   |              |       |                     | 9745         | 45    | 214.65                 |              |       |          |
| MK90 Prop Grain                                   |  |  | 8383         | 49    | 172.00   |              |       |                     | 12220        | 49    | 251.56                 |              |       |          |
| Complete Round                                    |  |  |              |       |  |              |       |                     |              |       |                        | 71916        | 154   | 466.99   |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 16777        |       |  |              |       |                     | 21965        |       |                        | 71916        |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 520          |       |  |              |       |                     | 2245         |       |                        | 3631         |       |          |
| Quality Assurance                                 |  |  | 23           |       |  |              |       |                     | 55           |       |                        | 74           |       |          |
| Acceptance Testing                                |  |  | 193          |       |  |              |       |                     |              |       |                        |              |       |          |
| Interim Transportation                            |  |  | 64           |       |  |              |       |                     | 158          |       |                        |              |       |          |
| Industrial Stock Support                          |  |  | 714          |       |  |              |       |                     | 777          |       |                        |              |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 3067         |       |  |              |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 4581         |       |  |              |       |                     | 3235         |       |                        | 3705         |       |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Material Change                                   |  |  |              |       |  |              |       |                     |              |       |                        | 300          |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |  |              |       |                     |              |       |                        | 300          |       |          |
| <b>TOTAL</b>                                      |  |  | 21358        |       | 468.86   |              |       |                     | 25200        |       | 555.09                 | 75921        |       | 492.99   |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: ROCKET HYDRA 70 SIG PRAC M274 (E37337)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Lockheed Martin<br>Burlington, VT             | C/FP                     | IOC             | Dec-96     | Oct-98                 | 45552    | 184.27       |                  |                  |                |
| FY 98                              | TBS   | C/FP                     | IOC             | Apr-98     | Feb-00                 | 45398    | 214.65       | Yes              |                  | Oct-97         |
| FY 99***                           | TBS   | C/FP                     | IOC             | Apr-99     | Feb-01                 | 154000   | 466.99       | Yes              |                  | Oct-98         |
| MK90 Prop Grain<br>FY 96           | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Nov-96     | Apr-97                 | 48741    | 172.00       |                  |                  |                |
| FY 98                              | TBS   | C/FP                     | IOC             | Feb-98     | Dec-99                 | 48576    | 251.56       | Yes              |                  | Oct-97         |
| FY 99                              | Plant Procured                                | N/A                      |                 | N/A        | N/A                    | N/A      | N/A          |                  |                  | N/A            |

REMARKS: TBS - To Be Selected  
 \*\*\*Complete Round









| Exhibit P-40, Budget Item Justification Sheet  |             |         |         |            |  |         |         |         |         | Date:<br>February 1998 |             |            |
|--|-------------|---------|---------|------------|--|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |            | P-1 Item Nomenclature:<br>PROJ ARTY 155MM SMOKE WP M825 (E67800) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:<br>A | Other Related Program Elements:                                  |         |         |         |         |                        |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998  | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty   | 460         |         |         |            |  |         |         |         |         |                        |             | 460        |
| Gross Cost   | 189.4       | 0.0     | 5.0     | 11.6       | 12.3   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 218.3      |
| Less PY Adv Proc   |             |         |         |            |  |         |         |         |         |                        |             |            |
| Plus CY Adv Proc   |             |         |         |            |  |         |         |         |         |                        |             |            |
| Net Proc (P-1)   | 189.4       | 0.0     | 5.0     | 11.6       | 12.3   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 218.3      |
| Initial Spares   |             |         |         |            |  |         |         |         |         |                        |             |            |
| Total Proc Cost  | 189.4       | 0.0     | 5.0     | 11.6       | 12.3   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 218.3      |
| Flyaway U/C  |             |         |         |            |  |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C   |             |         |         |            |  |         |         |         |         |                        |             |            |
| <p>DESCRIPTION:</p> <p>The M825 series 155mm white phosphorous (WP) smoke projectile is designed to be ballistically similar to the M483A1 family of projectiles and is compatible with all current and developmental U.S. 155mm artillery weapon systems. The M825 series projectile is required to provide fire support to forward area troops and equipment. Artillery delivered smoke screens are required in combat situations to support maneuver forces by reducing the effectiveness of enemy visual observation. The M825 series projectile consists of a modified M483A1 carrier, a felt wedge payload, a base, and a separately issued fuze. The modified carrier uses steel instead of the standard M483A1 fiber glass wrap about the circumference of the projectile carrier to offset the low density of the payload. The payload consists of 116 WP soaked felt wedges in a hermetically sealed canister positioned in the projectile body between the ogive and the base. The canister is a cylinder of thin rolled steel to which flat steel ends are welded. Either a mechanical or electronic time fuze is used to detonate the expulsion charge setting off a chain reaction resulting in the expulsion, ignition, and dissemination of the felt wedges thus creating the desired smoke screen. This item is Code A, approved for service use.</p> <p>JUSTIFICATION:</p> <p>This is a training standard item used in both training and combat. Procurement supports an urgently needed materiel change to correct current design defects that result in a high malfunction rate which threatens the safety of the using unit. The purpose of the materiel change is to test an improved design to allow resumption of prior year production and subsequent renovation of existing stocks. Renovation of these stocks is required to support annual peacetime training requirements and build a war reserve inventory in accordance with the Army's procurement goals.</p> <p>TYPE CLASSIFICATION DATE:</p> <p>1982</p> |             |         |         |            |  |         |         |         |         |                        |             |            |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support  
 P-1 Item Nomenclature: MAINTENANCE OF INACTIVE INDUSTRIAL FACILITIES (EP1500)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 296.7       | 40.9    | 17.3    | 22.1    | 22.5    | 15.8    | 13.2    | 12.5    | 11.0    | 9.8     | 0.0         | 461.8      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 296.7       | 40.9    | 17.3    | 22.1    | 22.5    | 15.8    | 13.2    | 12.5    | 11.0    | 9.8     | 0.0         | 461.8      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 296.7       | 40.9    | 17.3    | 22.1    | 22.5    | 15.8    | 13.2    | 12.5    | 11.0    | 9.8     | 0.0         | 461.8      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 This line provides for the maintenance of laidaway portions of active plants, care and maintenance of laidaway plants, and the storage, protection, and maintenance of laidaway Government-owned equipment being stored on-site at contractor-owned plants. Detailed budget estimates, by location, are provided on the Program Cost Breakdown (P-5). The following is a summary of funds required:

- (1) Inactive Production Lines/Areas at Active Plants (FY 99 - \$ 7.1M)
- (2) Inactive Production Lines/Areas at Inactive Plants (FY 99 - \$ 8.4M)
- (3) Inactive Production Lines/Areas at Contractor Plants (FY 99 - \$ 0.3M)

**JUSTIFICATION:**  
 Funds are used for the maintenance of laidaway ammunition industrial facilities to include utilities, buildings, nonseverable equipment, plant equipment, special tooling, and special test equipment being retained as part of approved plant equipment packages (PEPs) which are required to support future replenishment requirements. Also, includes a fair share of the recurring overhead costs such as grounds maintenance, fire protection, plant security, and administrative support.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 2 /<br>Ammunition Production Base Support |               |      | P-1 Line Item Nomenclature:<br>MAINTENANCE OF INACTIVE INDUSTRIAL<br>FACILITIES (EP1500) |               |      | Weapon System Type: |               |      | Date:<br>February 1998 |              |      |          |
|---|--|--|---------------|------|--|---------------|------|---------------------|---------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b>  |      |  | <b>FY 97</b>  |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost     | Qty  | UnitCost   | TotalCost     | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000         | Each | \$000  | \$000         | Each | \$000               | \$000         | Each | \$000                  | \$000        | Each | \$000    |
| <b>INACTIVE LINES AT ACTIVE PLANTS</b>            |  |  |               |      |  |               |      |                     |               |      |                        |              |      |          |
| Crane Army Ammunition Activity (AAA)              |  |  | 72            |      |  | 0             |      |                     | 165           |      |                        | 100          |      |          |
| Holston Army Ammunition Plant (AAP)               |  |  | 500           |      |  | 706           |      |                     | 1,887         |      |                        | 2,326        |      |          |
| Iowa AAP  |  |  | 0             |      |  | 200           |      |                     | 510           |      |                        | 500          |      |          |
| Indian Head                                       |  |  | 91            |      |  | 0             |      |                     | 0             |      |                        | 0            |      |          |
| Lake City AAP                                     |  |  | 83            |      |  | 1,680         |      |                     | 506           |      |                        | 638          |      |          |
| Lone Star AAP                                     |  |  | 295           |      |  | 476           |      |                     | 319           |      |                        | 636          |      |          |
| McAlester AAP                                     |  |  | 0             |      |  | 56            |      |                     | 222           |      |                        | 427          |      |          |
| Milan AAP   |  |  | 674           |      |  | 211           |      |                     | 1,213         |      |                        | 227          |      |          |
| Pine Bluff Arsenal                                |  |  | 424           |      |  | 1,587         |      |                     | 1,666         |      |                        | 700          |      |          |
| Radford AAP                                       |  |  | 329           |      |  | 2,500         |      |                     | 3,004         |      |                        | 1,500        |      |          |
| Seneca/Hawthorne Army Depot                       |  |  | 732           |      |  | 186           |      |                     | 0             |      |                        | 30           |      |          |
| <b>SubTotal</b>                                   |  |  | <b>3,200</b>  |      |  | <b>7,602</b>  |      |                     | <b>9,492</b>  |      |                        | <b>7,084</b> |      |          |
| <b>INACTIVE PLANTS</b>                            |  |  |               |      |  |               |      |                     |               |      |                        |              |      |          |
| Badger AAP  |  |  | 3,821         |      |  | 2,146         |      |                     | 3,225         |      |                        | 760          |      |          |
| Cornhusker AAP                                    |  |  | 53            |      |  | 0             |      |                     | 66            |      |                        | 67           |      |          |
| Fort Worth Corps of Engineers (CE)                |  |  | 967           |      |  | 902           |      |                     | 0             |      |                        | 0            |      |          |
| Indiana AAP                                       |  |  | 0             |      |  | 0             |      |                     | 0             |      |                        | 264          |      |          |
| Joliet AAP  |  |  | 0             |      |  | 10            |      |                     | 622           |      |                        | 69           |      |          |
| Kansas AAP  |  |  | 0             |      |  | 0             |      |                     | 0             |      |                        | 0            |      |          |
| Longhorn AAP                                      |  |  | 711           |      |  | 484           |      |                     | 485           |      |                        | 500          |      |          |
| Louisiana AAP                                     |  |  | 683           |      |  | 1,500         |      |                     | 323           |      |                        | 1,200        |      |          |
| Mississippi AAP                                   |  |  | 0             |      |  | 2,498         |      |                     | 2,519         |      |                        | 1,700        |      |          |
| Newport Chemical Activity                         |  |  | 351           |      |  | 0             |      |                     | 0             |      |                        | 0            |      |          |
| Ravenna AAP                                       |  |  | 940           |      |  | 1,730         |      |                     | 806           |      |                        | 301          |      |          |
| Riverbank AAP                                     |  |  | 1,533         |      |  | 1,552         |      |                     | 1,474         |      |                        | 1,362        |      |          |
| Scranton AAP                                      |  |  | 191           |      |  | 350           |      |                     | 263           |      |                        | 300          |      |          |
| Sunflower AAP                                     |  |  | 2,158         |      |  | 1,930         |      |                     | 2,720         |      |                        | 600          |      |          |
| Twin Cities AAP                                   |  |  | 0             |      |  | 153           |      |                     | 216           |      |                        | 220          |      |          |
| Volunteer AAP                                     |  |  | 2342          |      |  | 1253          |      |                     | 0             |      |                        | 1100         |      |          |
| <b>SubTotal</b>                                   |  |  | <b>13,750</b> |      |  | <b>14,508</b> |      |                     | <b>12,719</b> |      |                        | <b>8,443</b> |      |          |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 2 /<br>Ammunition Production Base Support |               |      | P-1 Line Item Nomenclature:<br>MAINTENANCE OF INACTIVE INDUSTRIAL<br>FACILITIES (EP1500) |               |      | Weapon System Type: |               |      | Date:<br>February 1998 |               |      |          |
|---|--|--|---------------|------|--|---------------|------|---------------------|---------------|------|------------------------|---------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b>  |      |  | <b>FY 97</b>  |      |                     | <b>FY 98</b>  |      |                        | <b>FY 99</b>  |      |          |
|   |  | CD   | TotalCost     | Qty  | UnitCost   | TotalCost     | Qty  | UnitCost            | TotalCost     | Qty  | UnitCost               | TotalCost     | Qty  | UnitCost |
|   |  |  | \$000         | Each | \$000  | \$000         | Each | \$000               | \$000         | Each | \$000                  | \$000         | Each | \$000    |
| <b>INACTIVE LINES AT CONTRACTOR PLANTS</b>        |  |  |               |      |  |               |      |                     |               |      |                        |               |      |          |
| Alliant Techsystems, Incorporated                 |  |  | 134           |      |  | 0             |      |                     | 216           |      |                        | 125           |      |          |
| AMRON Corporation (Antigo/Waukesha)               |  |  | 59            |      |  | 0             |      |                     | 45            |      |                        | 45            |      |          |
| Dayron  |  |  | 0             |      |  | 0             |      |                     | 13            |      |                        | 12            |      |          |
| Intercontinental Manufacturing Company<br>(IMCO)  |  |  | 107           |      |  | 0             |      |                     | 0             |      |                        | 117           |      |          |
| <b>SubTotal</b>                                   |  |  | <b>300</b>    |      |  | <b>0</b>      |      |                     | <b>274</b>    |      |                        | <b>299</b>    |      |          |
| <b>TOTAL</b>                                      |  |  | <b>17,250</b> |      |  | <b>22,110</b> |      |                     | <b>22,485</b> |      |                        | <b>15,826</b> |      |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support  
 P-1 Item Nomenclature: CONVENTIONAL AMMO DEMILITARIZATION (EP1800)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 158.8       | 104.3   | 93.5    | 95.4    | 91.0    | 98.0    | 91.7    | 90.8    | 92.1    | 93.4    | 0.0         | 1009.0     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 158.8       | 104.3   | 93.5    | 95.4    | 91.0    | 98.0    | 91.7    | 90.8    | 92.1    | 93.4    | 0.0         | 1009.0     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 158.8       | 104.3   | 93.5    | 95.4    | 91.0    | 98.0    | 91.7    | 90.8    | 92.1    | 93.4    | 0.0         | 1009.0     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The conventional ammunition demilitarization program funds the disposal, demilitarization, and resource recovery and recycling of conventional ammunition. This program also funds the movement of ammunition and technical support for demilitarization projects at various installations, and the commercial contracts for resource recovery/demilitarization of excess, obsolete, and unserviceable ammunition. Safety demilitarization is also funded for those ammunition assets which have become unsafe for continued storage.

**JUSTIFICATION:** As of 30 Sep 97, the conventional ammunition demilitarization account contained over 414,000 short tons of ammunition. An increasing portion of the existing serviceable ammunition inventory of all Services is becoming excess to requirements. Additionally, ammunition which is in an unserviceable but repairable condition is being placed in the demilitarization account because the cost to repair is not supported by firm requirements. The net result of the changing situation has been a tremendous increase in the quantity of ammunition either currently requiring demilitarization or forecast to enter the demilitarization account. In Fiscal Year 1997, demilitarization accomplishments totaled 144,022 short tons, the highest level ever achieved; however, an additional 251,038 short tons were generated. Future generations of ammunition into the demilitarization account are forecasted to approach 691,809 short tons over the next 6 years. Fiscal Year 1998 accomplishments are projected to be approximately 117,000 short tons. The accumulation of ammunition requiring demilitarization has a direct impact on the Army's ability to effectively support contingency operations. Demilitarization stocks simply get in the way of mobility operations and Base Realignment and Closure (BRAC) actions - stocks must be moved into already crowded depot storage locations. Depot tiering requirements are impacted as demilitarization stocks are malpositioned for the end state assignments. There is also a safety consideration in that ammunition stocks are becoming older and potentially less stable. The demilitarization program has the capability to execute at funding levels well in excess of those proposed, but the proposed levels will at least minimize the worst impacts of an increasing demilitarization inventory. As the execution agent for demilitarization of ammunition from all Services, the Army must demonstrate a strong commitment to reduce the backlog and provide demilitarization support for future additions of ammunition into the demilitarization account. The growth between FY 98 and FY 99 reflects increased Army Working Capital Fund rates.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 2 /<br>Ammunition Production Base Support |                |          | P-1 Line Item Nomenclature:<br>CONVENTIONAL AMMO DEMILITARIZATION<br>(EP1800) |                |          | Weapon System Type: |                |          | Date:<br>February 1998 |                |          |
|---|----------|--|----------------|----------|---|----------------|----------|---------------------|----------------|----------|------------------------|----------------|----------|
| Ammunition<br>Cost Elements               | ID<br>CD | FY 96  |                |          | FY 97   |                |          | FY 98               |                |          | FY 99                  |                |          |
|   |          | TotalCost  | Qty            | UnitCost | TotalCost   | Qty            | UnitCost | TotalCost           | Qty            | UnitCost | TotalCost              | Qty            | UnitCost |
|   |          | \$000  | ShortTons      | \$000    | \$000   | ShortTons      | \$000    | \$000               | ShortTons      | \$000    | \$000                  | ShortTons      | \$000    |
| WP/PWP                                    | CP       | 2,623  | 2,092          |          | 1,681   | 2,255          |          | 2,764               | 4,858          |          | 2,975                  | 5,229          |          |
| RIOT CONTROL                              | CR       | 6,440  | 4,269          |          | 2,379   | 1,001          |          | 546                 | 601            |          | 587                    | 647            |          |
| SMOKES, HC, COLORS, FS                    | CS       | 1,092  | 772            |          | 1,790   | 1,423          |          | 0                   | 0              |          | 0                      | 0              |          |
| DEPLETED URANIUM/TUNGSTEN CARBIDE         | DU       | 3,071  | 2,400          |          | 3,186   | 2,840          |          | 1,912               | 1,489          |          | 2,057                  | 1,603          |          |
| PYROTECHNICS/ILLUMINATION/NON FRAG        | FP       | 0  | 0              |          | 535   | 469            |          | 132                 | 246            |          | 142                    | 265            |          |
| HE BOMBS                                  | HB       | 239  | 1,790          |          | 12,695  | 21,206         |          | 777                 | 813            |          | 836                    | 875            |          |
| HE CARTRIDGES                             | HC       | 7,679  | 13,775         |          | 633   | 603            |          | 15,053              | 17,481         |          | 16,203                 | 18,816         |          |
| HE EXPLOSIVE "D"                          | HD       | 0  | 0              |          | 0   | 0              |          | 0                   | 0              |          | 0                      | 0              |          |
| BULK HIGH EXPLOSIVES                      | HE       | 0  | 0              |          | 0   | 0              |          | 130                 | 0              |          | 140                    | 0              |          |
| HE GRENADES                               | HG       | 0  | 0              |          | 0   | 0              |          | 0                   | 0              |          | 0                      | 0              |          |
| HE DEPTH CHARGES                          | HH       | 0  | 0              |          | 0   | 0              |          | 2,166               | 1,643          |          | 2,332                  | 1,769          |          |
| HE ICM/CBU AND SUBMUNITIONS WTV           | HI       | 5,702  | 32,227         |          | 8,331   | 25,277         |          | 12,622              | 25,133         |          | 13,587                 | 27,053         |          |
| HE MISSILES                               | HM       | 2,060  | 1,728          |          | 42  | 117            |          | 325                 | 699            |          | 350                    | 752            |          |
| HE PROJECTILES AND WARHEADS               | HP       | 12,846   | 23,458         |          | 2,625   | 6,361          |          | 6,640               | 12,840         |          | 7,147                  | 13,821         |          |
| HE ROCKETS                                | HR       | 0  | 0              |          | 411   | 412            |          | 99                  | 291            |          | 107                    | 313            |          |
| DEMOLITION MATERIAL                       | HX       | 67   | 69             |          | 0   | 0              |          | 0                   | 0              |          | 0                      | 0              |          |
| HE LAND MINES                             | HZ       | 1,641  | 1,743          |          | 2,431   | 3,667          |          | 1,083               | 1,180          |          | 1,166                  | 1,270          |          |
| INERT                                     | I        | 1,127  | 5,203          |          | 291   | 1,213          |          | 525                 | 952            |          | 565                    | 1,025          |          |
| BULK PROP                                 | PB       | 0  | 0              |          | 0   | 0              |          | 0                   | 0              |          | 0                      | 0              |          |
| PROPELLANT CHARGES AND INCREMENTS         | PC       | 0  | 0              |          | 0   | 0              |          | 1,303               | 10,000         |          | 1,402                  | 10,764         |          |
| PROPELLANT MUNITIONS/COMPONENTS           | PD       | 1,785  | 2,741          |          | 0   | 0              |          | 653                 | 3,408          |          | 703                    | 3,668          |          |
| SMALL ARMS AMMO THRU 20mm                 | SA       | 68   | 4,928          |          | 906   | 109            |          | 8                   | 7,500          |          | 8                      | 8,073          |          |
| INCINERABLE MUNITIONS                     | SC       | 33   | 26             |          | 1,025   | 945            |          | 671                 | 2,483          |          | 722                    | 2,673          |          |
| FUZES                                     | SF       | 549  | 845            |          | 1,042   | 1,251          |          | 330                 | 398            |          | 355                    | 428            |          |
| MULTIPLE FAMILY                           | MU       | 11,426   | 4,703          |          | 1,281   | 1,227          |          | 33,365              | 42,404         |          | 25,916                 | 35,644         |          |
| NO FAMILY                                 | N        | 23,831   | 52,029         |          | 39,913  | 49,024         |          | 1,725               | 0              |          | 10,683                 | 0              |          |
| OCONUS DEMIL                              | OC       | 11,200   | 5,909          |          | 14,231  | 10,151         |          | 8,200               | 8,500          |          | 10,000                 | 10,000         |          |
| <b>GRAND TOTAL</b>                        |          | <b>93,479</b>  | <b>160,707</b> |          | <b>95,428</b>   | <b>129,551</b> |          | <b>91,029</b>       | <b>142,919</b> |          | <b>97,983</b>          | <b>144,688</b> |          |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 2 / Ammunition Production Base Support  
 P-1 Item Nomenclature: ARMS INITIATIVE (EP2500)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 115.0       | 0.0     | 44.8    | 29.9    | 24.4    | 4.9     | 4.8     | 4.8     | 4.8     | 4.7     | 0.0         | 238.1      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 115.0       | 0.0     | 44.8    | 29.9    | 24.4    | 4.9     | 4.8     | 4.8     | 4.8     | 4.7     | 0.0         | 238.1      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 115.0       | 0.0     | 44.8    | 29.9    | 24.4    | 4.9     | 4.8     | 4.8     | 4.8     | 4.7     | 0.0         | 238.1      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:** The Armament Retooling and Manufacturing Support (ARMS) Initiative reuses idle capacity at active and inactive government-owned, contractor operated (GOCO) ammunition facilities through commercialization. Its objectives are to improve facility cost efficiencies (stable/lower product cost); reduce overhead costs; create opportunities for small businesses; retain skills; sustain economic development, and serve as a model for defense conversion. ARMS complies with Title 10 U.S.C. 2501, Note 2.

**JUSTIFICATION:** The Army's ammunition industrial manufacturing base is unique. It involves handling/processing hazardous materials, represents a large investment, and requires critical skills. To meet the peacetime and replenishment mission challenges of high quality production efficiencies at minimal cost, the ARMS initiative becomes a catalyst to commercialize ammunition facilities. This resulting product diversification and facility asset optimization meets the ARMS program objectives - primarily production process efficiency at minimal operating cost.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis   |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 2 /<br>Ammunition Production Base Support |             |                   | P-1 Line Item Nomenclature:<br>ARMS INITIATIVE (EP2500) |             |                   | Weapon System Type: |             |                   | Date:<br>February 1998 |             |                   |
|---|----------|--|-------------|-------------------|---|-------------|-------------------|---------------------|-------------|-------------------|------------------------|-------------|-------------------|
| Ammunition<br>Cost Elements   | ID<br>CD | FY 96  |             |                   | FY 97   |             |                   | FY 98               |             |                   | FY 99                  |             |                   |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000                                      | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$000 | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$000 |
| Financial Incentives  |          | 42,352   |             |                   | 29,486  |             |                   | 23,844              |             |                   | 4,275                  |             |                   |
| Environmental Baselines   |          | 161  |             |                   |   |             |                   | 186                 |             |                   | 186                    |             |                   |
| Loan Guarantees   |          | 1,364  |             |                   |   |             |                   | 152                 |             |                   | 152                    |             |                   |
| Administrative Support  |          | 880  |             |                   | 432   |             |                   | 248                 |             |                   | 248                    |             |                   |
| <b>TOTAL</b>  |          | <b>44,757</b>  |             |                   | <b>29,918</b>   |             |                   | <b>24,430</b>       |             |                   | <b>4,861</b>           |             |                   |
| <p>Active and inactive Army Ammunition Plants are currently participating in the Armament, Retooling, and Manufacturing Support (ARMS) Initiative and eligible to receive the incentives. The Army is currently validating its ammunition industrial base configuration under the Production Base Assessment. Facility eligibility may change, requiring transition and other business strategies to be developed for the ARMS program.</p> |          |  |             |                   |   |             |                   |                     |             |                   |                        |             |                   |



| Exhibit P-40, Budget Item Justification Sheet  |             |         |         |            |                                 |   |         | Date:<br>February 1998 |         |         |             |            |
|--|-------------|---------|---------|------------|---------------------------------|---|---------|------------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |            |                                 | P-1 Item Nomenclature:<br>CTG 120MM APFSDS-T M829A2/M829E3 (E78001) |         |                        |         |         |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:<br>A | Other Related Program Elements: |   |         |                        |         |         |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998                         | FY 1999   | FY 2000 | FY 2001                | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty   | 33          | 22      | 23      | 28         | 20                              | 2   | 1       | 1                      | 4       | 10      |             | 144        |
| Gross Cost   | 133.3       | 81.9    | 79.8    | 103.5      | 71.3                            | 9.7   | 5.3     | 19.1                   | 39.9    | 70.2    | 0.0         | 614.0      |
| Less PY Adv Proc   |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| Plus CY Adv Proc   |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| Net Proc (P-1)   | 133.3       | 81.9    | 79.8    | 103.5      | 71.3                            | 9.7   | 5.3     | 19.1                   | 39.9    | 70.2    | 0.0         | 614.0      |
| Initial Spares   |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| Total Proc Cost  | 133.3       | 81.9    | 79.8    | 103.5      | 71.3                            | 9.7   | 5.3     | 19.1                   | 39.9    | 70.2    | 0.0         | 614.0      |
| Flyaway U/C  |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| Wpn Sys Proc U/C   | 4039        | 3723    | 3519    | 3724       | 3825                            | 6445  | 11652   | 9322                   | 8231    | 7582    |             |            |
| <b>DESCRIPTION:</b>  |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| <p>The 120MM M829A2 Armor Piercing, Fin-Stabilized, Discarding Sabot with Tracer (APFSDS-T), cartridge is designed specifically as a anti-armor kinetic energy round. This round is fired from the M256 120MM cannon mounted on the M1A1 Abrams tank. The propellant system consists of a combustible cartridge case mounted on a steel stub base and filled with kerfed propellant. The propellant is ignited by a M129 electric primer. The projectile incorporated a segmented graphite reinforced plastic sabot held in place by a plastic band which separates in flight to allow the discarding of the sabot from the super depleted uranium (SDU) penetrator. A synthetic rubber seal is molded to the base of the sabot assembly to prevent the forward escape of hot propellant gases. The M829A2, although using many similar components of the M829A1 APFSDS-T, has been technologically improved to provide significantly greater armor penetration capability than the older round. This item is code A, approved for service use. This item has not been transitioned to SMCA and will be procured as actual cost in FY99.</p> |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| <b>JUSTIFICATION:</b>  |             |         |         |            |                                 |   |         |                        |         |         |             |            |
| <p>Procurement builds war reserve inventory in accordance with the Army's procurement goal. The acquisition strategy for FY95-FY98 was sole source multi-year production contract. Production of the M829A2 will provide a "leap-ahead" in tank ammunition technology to enable the U.S. tank fleet to defeat current and postulated threat armor well into the next century. Introduction of this technological advance complies with the objective of Armament Enhancement Initiatives fielding munition deterrent prior to the introduction of a new opposing armored threat. This round encompasses evolutionary advances in technology and represents the most effective tank round in production. The round will replace the currently fielded M829A1 APFSDS-T as production levels rise.</p>  |             |         |         |            |                                 |   |         |                        |         |         |             |            |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG 120MM APFSDS-T<br>M829A2/M829E3 (E78001) |               |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |      |             |
|---|--|--|--------------|-------|---|---------------|-------|---------------------|--------------|-------|------------------------|--------------|------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b>  |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |      |             |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost     | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty  | UnitCost    |
|   |  |  | \$Million    | Each  | \$000   | \$Million     | Each  | \$000               | \$Million    | Each  | \$000                  | \$Million    | Each | \$000       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |               |       |                     |              |       |                        |              |      |             |
| Complete Round                                    |  |  | 76328        | 22676 | 3366  | 93618         | 27780 | 3370                | 67957        | 20165 | 3370                   | 6569         | 1510 | 4350        |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>76328</b> |       |   | <b>93618</b>  |       |                     | <b>67957</b> |       |                        | <b>6569</b>  |      |             |
| <b>Production Support Costs</b>                   |  |  |              |       |   |               |       |                     |              |       |                        |              |      |             |
| Production Engineering                            |  |  | 1980         |       |   | 2150          |       |                     | 1829         |       |                        | 1668         |      |             |
| Quality Assurance                                 |  |  | 725          |       |   | 910           |       |                     | 725          |       |                        | 725          |      |             |
| Acceptance Testing                                |  |  | 775          |       |   | 1024          |       |                     | 775          |       |                        | 770          |      |             |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>3480</b>  |       |   | <b>4084</b>   |       |                     | <b>3329</b>  |       |                        | <b>3163</b>  |      |             |
| Nonrecurring Cost                                 |  |  |              |       |   |               |       |                     |              |       |                        |              |      |             |
| 1. Expired year bill                              |  |  |              |       |   | 5786          |       |                     |              |       |                        |              |      |             |
|   |  |  |              |       |   | <b>5786</b>   |       |                     |              |       |                        |              |      |             |
| <b>TOTAL</b>                                      |  |  | <b>79808</b> |       | <b>3519</b>   | <b>103488</b> |       | <b>3724</b>         | <b>71286</b> |       | <b>3825</b>            | <b>9732</b>  |      | <b>6445</b> |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |            |   |          |                 |                  |                  | Date:          |
|--|---|--------------------------|-----------------|------------|---|----------|-----------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |            |   |          |                 |                  |                  | February 1998  |
| Weapon System Type:  |   |                          |                 |            | P-1 Line Item Nomenclature:               |          |                 |                  |                  |                |
|  |   |                          |                 |            | CTG 120MM APFSDS-T M829A2/M829E3 (E78001) |          |                 |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                   | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery                    | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. COMPLETE ROUND  |   |                          |                 |            |   |          |                 |                  |                  |                |
| FY96   | Olin Ordnance Corp<br>St. Petersburg, FL  | SSM-4/FP                 | ARDEC           | Mar-96     | Jan-97                                    | 22676    | 3366            | yes              | no               |                |
| FY97   | Primex Technologies<br>St. Petersburg, FL | SSM-4/FP                 | ARDEC           | Feb-97     | Dec-97                                    | 23664    | 3370            | yes              | no               |                |
| FY97   | Primex Technologies<br>St. Petersburg, FL | SSM-4/FP                 | ARDEC           | Jan-98     | Dec-98                                    | 4116     | 3370            | yes              | no               |                |
| FY98   | Primex Technologies<br>St. Petersburg, FL | SSM-4/FP                 | ARDEC           | Jan-98     | Feb-99                                    | 13382    | 3370            | yes              | no               |                |
| FY98   | Primex Technologies<br>St. Petersburg, FL | SS-Option                | ARDEC           | Jan-99     | Nov-99                                    | 6783     | 3370            | yes              | no               |                |
| FY99   | St. Petersburg, FL<br>Primex Technologies | SS-Option                | ARDEC           | Jan-99     | Apr-00                                    | 1510     | 4350            | yes              | no               |                |
| REMARKS: Primex Technologies spun-off from Olin Ordnance Corp in Jan 97.                 |   |                          |                 |            |   |          |                 |                  |                  |                |





| <b>Exhibit P-40, Budget Item Justification Sheet</b>  |             |         |         |         |  |         |         |         |         | Date:<br>February 1998 |             |            |
|---|-------------|---------|---------|---------|--|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |         | P-1 Item Nomenclature:<br>AMMUNITION PECULIAR EQUIPMENT (EA0575) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:  |             |         |         | Code:   | Other Related Program Elements:                                  |         |         |         |         |                        |             |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998  | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Gross Cost  | 67.7        | 4.6     | 4.9     | 5.2     | 8.4  | 10.4    | 10.8    | 9.9     | 9.4     | 9.1                    | 0.0         | 140.4      |
| Less PY Adv Proc  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Plus CY Adv Proc  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Net Proc (P-1)  | 67.7        | 4.6     | 4.9     | 5.2     | 8.4  | 10.4    | 10.8    | 9.9     | 9.4     | 9.1                    | 0.0         | 140.4      |
| Initial Spares  |             |         |         |         |  |         |         |         |         |                        |             |            |
| Total Proc Cost   | 67.7        | 4.6     | 4.9     | 5.2     | 8.4  | 10.4    | 10.8    | 9.9     | 9.4     | 9.1                    | 0.0         | 140.4      |
| Flyaway U/C   |             |         |         |         |  |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C  |             |         |         |         |  |         |         |         |         |                        |             |            |
| <p><b>DESCRIPTION:</b><br/> Ammunition Peculiar Equipment (APE) is unique, low density equipment items specifically designed, fabricated, tested, procured, and adopted for use in ammunition depot operations on conventional and chemical ammunition. These depot operations involve maintenance, demilitarization, preservation/packaging, and surveillance functions on the ammunition item. APE is not stocked nor is it available from commercial sources. This equipment is different from production line plant equipment in that it disassembles ammunition items into components, usually for the removal of a hazardous component. APE is also designed to perform cleaning and reservation functions on ammunition subjected to deterioration effects (rust, corrosion, weathering, etc) during its storage life. APE supporting surveillance is keyed to stockpile sampling and funding of the items to assure readiness for combat or training. Demilitarization APE is similar somewhat to maintenance APE but must go further in disassembly to destroy hazardous components and reclaim salvageable parts or metals. APE is designed, developed, and fielded to support ammunition field service stocks that are currently on hand in the inventory control point and is used to restore these stocks to an issuance/serviceable condition.</p> <p><b>JUSTIFICATION:</b><br/> The APE and replacement parts must be on-hand to perform any of the ammunition depot operations for conventional and chemical ammunition. The ammunition depot operations cannot be accomplished if the required APE is not supplied in a timely manner. Ammunition readiness will be in jeopardy, public laws on environment and safety involving hazardous materiel may be violated, and a possible loss of life and Government property may result through altering of equipment to meet ammunition operations requirements. The APE is centrally managed by HQ,IOC. The equipment is loaded to worldwide locations for the accomplishment of depot type operations based on the ammunition requirements. The equipment described herein is required to support the following ammunition programs: Integrated Conventional Ammunition Maintenance Plan (ICAMP), surveillance program for lethal chemical agents and munitions; equipment for worldwide maintenance lines; equipment to support the toxic chemical maintenance facilities; Prepositioned Ships; and also to support Government-owned, contractor-operated plants as Government furnished equipment (GFE) in support of ammunition depot operations at those locations.</p> |             |         |         |         |  |         |         |         |         |                        |             |            |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: GRENADES, ALL TYPES (E34000)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 539.0       | 5.0     | 23.9    | 4.2     | 14.3    | 21.4    | 20.6    | 21.7    | 22.0    | 24.4    | 0.0         | 696.5      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 539.0       | 5.0     | 23.9    | 4.2     | 14.3    | 21.4    | 20.6    | 21.7    | 22.0    | 24.4    | 0.0         | 696.5      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 539.0       | 5.0     | 23.9    | 4.2     | 14.3    | 21.4    | 20.6    | 21.7    | 22.0    | 24.4    | 0.0         | 696.5      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes Grenades ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |    | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |       |          | P-1 Line Item Nomenclature:<br>GRENADES, ALL TYPES (E34000) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----|--|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |    | <b>FY 96</b>   |       |          | <b>FY 97</b>  |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
| ID  | CD | TotalCost  | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |    | \$000  | x1000 | \$       | \$000   | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000 | \$       |
|   |    | 10491  | 3330  | 3.15     |   |       |          |                     |       |          | 1931                   | 808   | 2.20     |
|   |    | 1290   | 40    | 32.20    |   |       |          | 2401                | 75    | 31.89    | 4340                   | 130   | 33.27    |
|   |    | 570  |       |          |   |       |          | 1346                | 42    | 31.90    | 2764                   | 73    | 37.61    |
|   |    | 11587  | 350   | 33.28    | 4150  | 122   | 34.07    | 8963                | 232   | 38.70    | 8641                   | 207   | 41.72    |
|   |    |  |       |          |   |       |          | 1599                | 28    |          | 549                    | 14    | 39.69    |
|   |    |  |       |          |   |       |          |                     |       |          | 1265                   | 20    |          |
|   |    |  |       |          |   |       |          |                     |       |          | 1892                   | 40    | 47.30    |
| <b>TOTAL</b>                                      |    | 23938  |       |          | 4150  |       |          | 14309               |       |          | 21382                  |       |          |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: FUZE GRENADE HAND PRAC M228 (E31900)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 73709       | 1328    | 3330    |         |         | 808     | 2135    | 2135    | 2135    | 2135    |             | 87715      |
| Gross Cost       | 61.7        | 3.9     | 10.5    | 0.0     | 0.0     | 1.9     | 5.1     | 5.1     | 5.2     | 5.2     | 0.0         | 98.6       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 61.7        | 3.9     | 10.5    | 0.0     | 0.0     | 1.9     | 5.1     | 5.1     | 5.2     | 5.2     | 0.0         | 98.6       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 61.7        | 3.9     | 10.5    | 0.0     | 0.0     | 1.9     | 5.1     | 5.1     | 5.2     | 5.2     | 0.0         | 98.6       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M228 fuze is a pyrotechnic delay-igniting fuze used with the M69 delay practice hand grenade. It is used by the individual soldier for training purposes. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1971

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>FUZE GRENADE HAND PRAC M228<br>(E31900) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$   | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Complete Round                                    |  |  | 8239         | 3330  | 2.47   |              |       |                     |              |       |                        | 1777         | 808   | 2.20     |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 8239         |       |  |              |       |                     |              |       |                        | 1777         |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 255          |       |  |              |       |                     |              |       |                        | 118          |       |          |
| Quality Assurance                                 |  |  | 12           |       |  |              |       |                     |              |       |                        |              |       |          |
| Acceptance Testing                                |  |  | 95           |       |  |              |       |                     |              |       |                        |              |       |          |
| Interim Transportation                            |  |  | 31           |       |  |              |       |                     |              |       |                        |              |       |          |
| Industrial Stock Support                          |  |  | 353          |       |  |              |       |                     |              |       |                        | 36           |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 1506         |       |  |              |       |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 2252         |       |  |              |       |                     |              |       |                        | 154          |       |          |
| <b>TOTAL</b>                                      |  |  | 10491        |       | 3.15   |              |       |                     |              |       |                        | 1931         |       | 2.39     |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: FUZE GRENADE HAND PRAC M228 (E31900)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location         | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|---------------------------------|--------------------------|-----------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| Complete Round<br>FY 96            | Martin Electronics<br>Perry, FL | C/FP                     | IOC             | Sep-96     | Dec-96                 | 3330         | 2.47            |                  |                  |                |
| FY 99                              |                                 | C/FP                     | IOC             | Mar-99     | Dec-99                 | 808          | 2.20            | Yes              |                  | Oct-98         |

REMARKS: TBS - To Be Selected





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: GRENADE HAND SMOKE YELLOW M18 (E34002)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 1897        |         | 40      |         | 75      | 130     | 106     | 106     | 106     | 106     |             | 2566       |
| Gross Cost       | 29.6        | 0.0     | 1.3     | 0.0     | 2.4     | 4.3     | 2.7     | 2.7     | 2.7     | 2.8     | 0.0         | 48.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 29.6        | 0.0     | 1.3     | 0.0     | 2.4     | 4.3     | 2.7     | 2.7     | 2.7     | 2.8     | 0.0         | 48.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 29.6        | 0.0     | 1.3     | 0.0     | 2.4     | 4.3     | 2.7     | 2.7     | 2.7     | 2.8     | 0.0         | 48.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M18 Yellow Smoke Hand Grenade is used for ground to air or ground to ground signaling. Each grenade emits smoke for approximately 50 to 90 seconds. The body is made of thin sheet metal and is filled with yellow smoke composition. The filler is topped with a starter mixture utilizing the M201A1 fuze. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1943

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>GRENADE HAND SMOKE YELLOW M18<br>(E34002) |              |      | Weapon System Type: |              |       | Date:<br>February 1998 |              |        |          |
|---|--|--|--------------|-------|--|--------------|------|---------------------|--------------|-------|------------------------|--------------|--------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |        |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty    | UnitCost |
|   |  |  | \$000        | Each  | \$   | \$000        | Each | \$                  | \$000        | Each  | \$                     | \$000        | Each   | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |      |                     |              |       |                        |              |        |          |
| Load, Assemble and Pack                           |  |  | 1013         | 40059 | 25.29  |              |      |                     | 2072         | 75287 | 27.52                  |              |        |          |
| Nitrocellulose WW GR D (LB)                       |  |  |              | 33    | 7.97   |              |      |                     |              | 61    | 4.04                   |              |        |          |
| Complete Round                                    |  |  |              |       |  |              |      |                     |              |       |                        | 3177         | 130445 | 24.36    |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 1013         |       |  |              |      |                     | 2072         |       |                        | 3177         |        |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |      |                     |              |       |                        |              |        |          |
| Production Engineering                            |  |  | 31           |       |  |              |      |                     | 212          |       |                        | 1099         |        |          |
| Quality Assurance                                 |  |  | 1            |       |  |              |      |                     | 5            |       |                        |              |        |          |
| Acceptance Testing                                |  |  | 12           |       |  |              |      |                     | 24           |       |                        |              |        |          |
| Interim Transportation                            |  |  | 4            |       |  |              |      |                     | 15           |       |                        |              |        |          |
| Industrial Stock Support                          |  |  | 44           |       |  |              |      |                     | 73           |       |                        | 64           |        |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 185          |       |  |              |      |                     |              |       |                        |              |        |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 277          |       |  |              |      |                     | 329          |       |                        | 1163         |        |          |
| <b>TOTAL</b>                                      |  |  | 1290         |       | 32.20  |              |      |                     | 2401         |       | 31.89                  | 4340         |        | 33.27    |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                 |            |                        |          |              |   |                  | Date:          |  |
|--|---|--------------------------|-----------------|------------|------------------------|----------|--------------|---|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                 |            | Weapon System Type:    |          |              | P-1 Line Item Nomenclature:<br>GRENADE HAND SMOKE YELLOW M18 (E34002) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now?  | Date Revsn Avail | RFP Issue Date |  |
| Load, Assemble and Pack<br>FY 96   | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | May-96     | Apr-97                 | 40059    | 25.29        |   |                  |                |  |
| FY 98  | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-98     | Apr-99                 | 75287    | 27.52        | Yes   |                  | Oct-97         |  |
| FY 99***   | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-99     | Apr-00                 | 130445   | 24.36        | Yes   |                  | Oct-98         |  |
| Nitrocellulose WW GR D (LB)<br>FY 96   | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Jan-96     | Mar-97                 | 33       | 7.97         |   |                  |                |  |
| FY 98  | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Jan-98     | Mar-99                 | 61       | 4.04         | Yes   |                  | Oct-97         |  |
| FY 99  | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A   |                  | N/A            |  |
| REMARKS: ***Complete Round   |   |                          |                 |            |                        |          |              |   |                  |                |  |







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: GRENADE HAND SMOKE VIOLET M18 (E34004)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 1002        |         |         |         | 42      | 73      | 54      | 54      | 54      | 54      |             | 1333       |
| Gross Cost       | 14.0        | 0.0     | 0.6     | 0.0     | 1.3     | 2.8     | 1.4     | 1.4     | 1.5     | 1.5     | 0.0         | 24.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 14.0        | 0.0     | 0.6     | 0.0     | 1.3     | 2.8     | 1.4     | 1.4     | 1.5     | 1.5     | 0.0         | 24.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 14.0        | 0.0     | 0.6     | 0.0     | 1.3     | 2.8     | 1.4     | 1.4     | 1.5     | 1.5     | 0.0         | 24.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M18 Violet Smoke Hand Grenade is used for ground to air or ground to ground signaling. Each grenade emits smoke for approximately 50 to 90 seconds. The body is made of thin sheet metal and is filled with violet smoke composition. The filler is topped with a starter mixture utilizing the M201A1 fuze. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1943

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b>      |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>GRENADE HAND SMOKE VIOLET M18<br>(E34004) |              |      | Weapon System Type: |              |             | Date:<br>February 1998 |              |       |          |
|--|--|--|--------------|------|--|--------------|------|---------------------|--------------|-------------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>                    |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |             |                        | <b>FY 99</b> |       |          |
|  |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty         | UnitCost               | TotalCost    | Qty   | UnitCost |
|  |  |  | \$000        | Each | \$   | \$000        | Each | \$                  | \$000        | Each        | \$                     | \$000        | Each  | \$       |
| <b>AMMUNITION HARDWARE</b>                             |  |  |              |      |  |              |      |                     |              |             |                        |              |       |          |
| Load, Assemble and Pack<br>Nitrocellulose WW GR D (LB) |  |  |              |      |  |              |      |                     | 1161         | 42190<br>34 | 27.53<br>4.04          | 1845         | 73499 | 25.11    |
| <b>SubTotal AMMO Hardware</b>                          |  |  |              |      |  |              |      |                     | 1161         |             |                        | 1845         |       |          |
| <b>Production Support Costs</b>                        |  |  |              |      |  |              |      |                     |              |             |                        |              |       |          |
| Production Engineering                                 |  |  |              |      |  |              |      |                     | 119          |             |                        | 882          |       |          |
| Quality Assurance                                      |  |  |              |      |  |              |      |                     | 3            |             |                        |              |       |          |
| Acceptance Testing                                     |  |  |              |      |  |              |      |                     | 13           |             |                        |              |       |          |
| Interim Transportation                                 |  |  |              |      |  |              |      |                     | 8            |             |                        |              |       |          |
| Industrial Stock Support                               |  |  |              |      |  |              |      |                     | 42           |             |                        | 37           |       |          |
| CAWCF Gain/Loss Surcharge                              |  |  |              |      |  |              |      |                     |              |             |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                          |  |  |              |      |  |              |      |                     | 185          |             |                        | 919          |       |          |
| COST - Nonrecurring:                                   |  |  |              |      |  |              |      |                     |              |             |                        |              |       |          |
| Materiel Change  |  |  | 570          |      |  |              |      |                     |              |             |                        |              |       |          |
| <b>SubTotal COST-Nonrecurring</b>                      |  |  | 570          |      |  |              |      |                     |              |             |                        |              |       |          |
| <b>TOTAL</b>   |  |  | 1140         |      |  |              |      |                     | 1346         |             | 31.90                  | 2764         |       | 37.61    |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: GRENADE HAND SMOKE VIOLET M18 (E34004)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 98     | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-98     | Apr-99                 | 42190    | 27.53        | Yes              |                  | Oct-97         |
| FY 99***                             | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-99     | Apr-00                 | 73499    | 25.11        | Yes              |                  | Oct-98         |
| Nitrocellulose WW GR D (LB)<br>FY 98 | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Jan-98     | Mar-99                 | 34       | 4.04         | Yes              |                  | Oct-97         |
| FY 99                                | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |

REMARKS: \*\*\*Complete Round





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: GRENADE HAND SMOKE TNG M83 (E69300)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 350     | 122     | 232     | 207     | 211     | 212     | 212     | 213     |             | 1759       |
| Gross Cost       | 0.0         | 0.0     | 11.6    | 4.2     | 9.0     | 8.6     | 6.3     | 6.4     | 6.4     | 6.6     | 0.0         | 59.1       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 11.6    | 4.2     | 9.0     | 8.6     | 6.3     | 6.4     | 6.4     | 6.6     | 0.0         | 59.1       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 11.6    | 4.2     | 9.0     | 8.6     | 6.3     | 6.4     | 6.4     | 6.6     | 0.0         | 59.1       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M83 hand grenade contains approximately 1 pound of environmentally acceptable smoke mixture. The smoke mixture is initiated by a pyrotechnic delay-igniting fuze. After initiation, there is a 3 second delay after which a dense smoke cloud is produced to to conceal troop, vehicle, or other march movements. The M83 training grenade is deployed in a similar manner as the M8 series of service smoke grenades. It is used by the individual soldier in squad, company, and battalion units. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training unique item; not used in combat. This grenade is urgently needed to replace the current M8 HC filled munition with a training safe version to reduce the hazard of troop exposure carcinogenic HC smoke. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1994



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |        | P-1 Line Item Nomenclature:<br>GRENADE HAND SMOKE TNG M83<br>(E69300) |              |        | Weapon System Type: |              |        | Date:<br>February 1998 |              |        |          |
|---|--|--|--------------|--------|---|--------------|--------|---------------------|--------------|--------|------------------------|--------------|--------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |        |   | <b>FY 97</b> |        |                     | <b>FY 98</b> |        |                        | <b>FY 99</b> |        |          |
|   |  | CD   | TotalCost    | Qty    | UnitCost  | TotalCost    | Qty    | UnitCost            | TotalCost    | Qty    | UnitCost               | TotalCost    | Qty    | UnitCost |
|   |  |  | \$000        | Each   | \$  | \$000        | Each   | \$                  | \$000        | Each   | \$                     | \$000        | Each   | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |        |   |              |        |                     |              |        |                        |              |        |          |
| Load, Assemble and Pack                           |  |  | 10338        | 349750 | 29.56   | 3377         | 121808 | 27.73               | 7734         | 231594 | 33.39                  | 5925         | 207133 | 28.61    |
| Nitrocellulose WW GR D (LB)                       |  |  | 3            | 385    | 7.97  |              |        |                     | 1            | 255    | 4.04                   |              |        |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 10341        |        |   | 3377         |        |                     | 7735         |        |                        | 5925         |        |          |
| <b>Production Support Costs</b>                   |  |  |              |        |   |              |        |                     |              |        |                        |              |        |          |
| Production Engineering                            |  |  | 614          |        |   | 154          |        |                     | 790          |        |                        | 2595         |        |          |
| Quality Assurance                                 |  |  | 15           |        |   | 5            |        |                     | 19           |        |                        |              |        |          |
| Acceptance Testing                                |  |  | 123          |        |   | 37           |        |                     | 89           |        |                        |              |        |          |
| Interim Transportation                            |  |  | 41           |        |   | 32           |        |                     | 56           |        |                        |              |        |          |
| Industrial Stock Support                          |  |  | 453          |        |   | 134          |        |                     | 274          |        |                        | 121          |        |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |        |   | 411          |        |                     |              |        |                        |              |        |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 1246         |        |   | 773          |        |                     | 1228         |        |                        | 2716         |        |          |
| <b>TOTAL</b>                                      |  |  | 11587        |        | 33.13   | 4150         |        | 34.07               | 8963         |        | 38.70                  | 8641         |        | 41.72    |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: GRENADE HAND SMOKE TNG M83 (E69300)

| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                       | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|--------------------------------------|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96     | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-96     | Oct-96                 | 349750   | 29.56        |                  |                  |                |
| FY 97***                             | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-97     | Apr-98                 | 121808   | 27.73        | Yes              |                  | Dec-96         |
| FY 98                                | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-98     | Apr-99                 | 231594   | 33.39        | Yes              |                  | Oct-97         |
| FY 99***                             | Pine Bluff Arsenal<br>Pine Bluff, AR          | SS/FP                    | IOC             | Mar-99     | Apr-00                 | 207133   | 28.61        | Yes              |                  | Oct-98         |
| Nitrocellulose WW GR D (LB)<br>FY 96 | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Jan-96     | Mar-96                 | 385      | 7.97         | Yes              |                  |                |
| FY 97                                | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |
| FY 98                                | Alliant Tech Sys (Radford AAP)<br>Radford, VA | SS/CPAF                  | IOC             | Jan-98     | Mar-99                 | 255      | 4.04         | Yes              |                  | Oct-97         |
| FY 99                                | Plant Procured                                | N/A                      | N/A             | N/A        | N/A                    | N/A      | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected  
 \*\*\*Complete Round





| Exhibit P-40, Budget Item Justification Sheet  |             |         |         |         |                                 |  |         |         |         |         | Date:<br>February 1998 |            |
|--|-------------|---------|---------|---------|---------------------------------|--|---------|---------|---------|---------|------------------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |         |                                 | P-1 Item Nomenclature:<br>FIRST DESTINATION TRANSPORTATION (AMMO) (EA0550) |         |         |         |         |                        |            |
| Program Elements for Code B Items:   |             |         |         | Code:   | Other Related Program Elements: |  |         |         |         |         |                        |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998                         | FY 1999  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete            | Total Prog |
| Proc Qty   |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Gross Cost   | 704.5       | 4.8     | 4.3     | 5.3     | 6.4                             | 6.2  | 5.3     | 5.2     | 5.3     | 5.4     | 0.0                    | 752.7      |
| Less PY Adv Proc   |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Plus CY Adv Proc   |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Net Proc (P-1)   | 704.5       | 4.8     | 4.3     | 5.3     | 6.4                             | 6.2  | 5.3     | 5.2     | 5.3     | 5.4     | 0.0                    | 752.7      |
| Initial Spares   |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Total Proc Cost  | 704.5       | 4.8     | 4.3     | 5.3     | 6.4                             | 6.2  | 5.3     | 5.2     | 5.3     | 5.4     | 0.0                    | 752.7      |
| Flyaway U/C  |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| Wpn Sys Proc U/C   |             |         |         |         |                                 |  |         |         |         |         |                        |            |
| <p><b>DESCRIPTION:</b></p> <p>Transportation funds are required to support procurement and distribution of Army ammunition end items from manufacturing plants or assembly points; e.g., AAP, to a CONUS depot, customer, other point of first acceptance into the Army supply system or to a port for transportation to a second destination; e.g., OCONUS customers. These funds directly support training and readiness requirements of soldiers in the field (CONUS and OCONUS) to include major OCONUS programs such as Europe and Korea training and prepositioned war reserve requirements; war reserves support to allies (Korea and Thailand); afloat prepositioned ships, etc.</p> |             |         |         |         |                                 |  |         |         |         |         |                        |            |

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

Date: February 1998

| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |             |         |         |         | P-1 Item Nomenclature:<br>CTG 81MM INFRARED (IR) ILLUM XM816 (E90000) |         |         |         |         |         |             |            |
|--|-------------|---------|---------|---------|---|---------|---------|---------|---------|---------|-------------|------------|
| Program Elements for Code B Items:   |             |         |         | Code:   | Other Related Program Elements:                                       |         |         |         |         |         |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998   | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty   |             |         |         |         |   | 8       |         |         |         |         |             | 8          |
| Gross Cost   | 0.0         | 0.0     | 0.0     | 0.0     | 0.0   | 9.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 9.4        |
| Less PY Adv Proc   |             |         |         |         |   |         |         |         |         |         |             |            |
| Plus CY Adv Proc   |             |         |         |         |   |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 0.0   | 9.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 9.4        |
| Initial Spares   |             |         |         |         |   |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 0.0   | 9.4     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 9.4        |
| Flyaway U/C  |             |         |         |         |   |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C   |             |         |         |         |   |         |         |         |         |         |             |            |

**DESCRIPTION:**

The round is used to illuminate target areas during night operations. It consists of a two-piece body filled with illuminating flare, fuze, and tail assembly. It bursts over a target, producing infrared illumination which greatly enhances the performance of night vision devices. This item is code A: it has been type classified and approved for service use.

**JUSTIFICATION:**

The FY99 Procurement builds a war reserve in support of fielded mortar weapons.

Type classification date: TC LP JUL94; TC STD NOV00

Acquisition manager: PM MORTARS

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG 81MM INFRARED (IR) ILLUM XM816<br>(E90000) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |       |             |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|-------|-------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |       |             |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty   | UnitCost    |
|   |  |  | \$000        | Each | \$  | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each  | \$          |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |       |             |
| 1. CTG, XM816, LAP                                |  |  |              |      |   |              |      |                     |              |      |                        | 2229         | 8000  | 279         |
| 2. Shell bodies                                   |  |  |              |      |   |              |      |                     |              |      |                        | 208          | 8320  | 25          |
| 3. Prop Chg M219                                  |  |  |              |      |   |              |      |                     |              |      |                        | 158          | 32800 | 5           |
| 4. Ign Ctg M752                                   |  |  |              |      |   |              |      |                     |              |      |                        | 149          | 8320  | 18          |
| 5. Fuze M772                                      |  |  |              |      |   |              |      |                     |              |      |                        | 1235         | 8320  | 148         |
| 6. Other Hardware                                 |  |  |              |      |   |              |      |                     |              |      |                        | 44           |       |             |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |   |              |      |                     |              |      |                        | <b>4023</b>  |       |             |
| <b>Production Support Costs</b>                   |  |  |              |      |   |              |      |                     |              |      |                        |              |       |             |
| Production Engineering                            |  |  |              |      |   |              |      |                     |              |      |                        | 1439         |       |             |
| Quality Assurance                                 |  |  |              |      |   |              |      |                     |              |      |                        | 387          |       |             |
| Acceptance Testing                                |  |  |              |      |   |              |      |                     |              |      |                        | 373          |       |             |
| Interim Transportation                            |  |  |              |      |   |              |      |                     |              |      |                        | 132          |       |             |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |   |              |      |                     |              |      |                        | <b>2331</b>  |       |             |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |       |             |
| First Article Testing/IPT                         |  |  |              |      |   |              |      |                     |              |      |                        | 3012         |       |             |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |      |   |              |      |                     |              |      |                        | <b>3012</b>  |       |             |
| <b>TOTAL</b>                                      |  |  |              |      |   |              |      |                     |              |      |                        | <b>9366</b>  |       | <b>1171</b> |

| Exhibit P-5a, Budget Procurement History and Planning   |                                    |                          |                 |   |                        |          |              |                  |                  | Date:          |
|---|------------------------------------|--------------------------|-----------------|---|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |                                    |                          |                 |   |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:   |                                    |                          |                 | P-1 Line Item Nomenclature:                 |                        |          |              |                  |                  |                |
|   |                                    |                          |                 | CTG 81MM INFRARED (IR) ILLUM XM816 (E90000) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location            | Contract Method and Type | Location of PCO | Award Date                                  | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. CTG, XM816, LAP<br>FY 99   | Pine Bluff Arsenal, Pine Bluff, AR | SS/CR                    | TACOM           | Mar-99                                      | Dec-00                 | 8000     | 279          |                  |                  |                |
| 2. Shell Bodies<br>FY 99  | TACOM                              | C/FP                     | TACOM           | Mar-99                                      | Feb-00                 | 8320     | 25           |                  |                  |                |
| 3. Prop Chg M219<br>FY 99   | Unknown                            | OPT                      | TACOM           | Mar-99                                      | Feb-00                 | 32800    | 5            |                  |                  |                |
| 4. Ign Ctg M752<br>FY 99  | Unknown                            | C/FP                     | TACOM           | Mar-99                                      | Feb-00                 | 8320     | 18           |                  |                  |                |
| 5. Fuze M772<br>FY 99   | Diehl GMBH<br>Schramberg, Germany  | SS/FP                    | TACOM           | Mar-99                                      | Feb-00                 | 8320     | 148          |                  |                  |                |
| <b>REMARKS:</b> Sole source to Pine Bluff Arsenal to workload specified mission facility.<br>Sole source to Diehl GMBH as only responsible source.<br>Shell body contract limited to North America competition. |                                    |                          |                 |   |                        |          |              |                  |                  |                |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             | 79      | 130     | 84      | 74      |         |         |         |         |         |             | 367        |
| Gross Cost       | 0.0         | 53.6    | 51.6    | 39.9    | 35.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 180.3      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 53.6    | 51.6    | 39.9    | 35.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 180.3      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 53.6    | 51.6    | 39.9    | 35.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 180.3      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             | 0.0007  | 0.0004  | 0.0005  | 0.0005  |         |         |         |         |         |             | 0.0005     |

DESCRIPTION: The M795 projectile consists of 23.8 pounds of TNT explosive loaded into a 78.1 pound high fragmentation steel body assembly. The projectile is fitted with a protective shock attenuating lifting plug at the nose and a grommet which protects the rotating band during shipping and handling. The projectile can use several different fuzes (impact, mechanical time and short intrusion proximity). The M795 will supplement the currently stockpiled M107. It will be used for conventional fire support for Harassment and Interdiction, fragmentation, mining and blast effect. It is also used as a registration round for the M483A1 family of cargo munitions and can be used as a registration round for the 155mm Sense and Destroy Armor (SADARM) M898. It provides greater range and effectiveness than the M107, which cannot be fired at top zone with the M203A1 (Zone 8) charge. This item is Code A, approved for service use.

JUSTIFICATION: The M795 will support the following howitzers: M198, M109 Series, including Paladin, and the Trilateral FH70 and Crusader.

TYPE CLASSIFICATION DATE: February 1982

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>PROJ ARTY 155MM HE M795 (E66800) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|---|--------------|-------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | x1000 | \$  | \$000        | x1000 | \$                  | \$000        | x1000 | \$                     | \$000        | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Load, Assemble, and Pack                          |  | A  | 18333        | 130   | 141   | 11874        | 84    | 141                 | 10658        | 74    | 145                    |              |       |          |
| Metal Parts                                       |  |  | 30528        | 132   | 231   | 22094        | 85    | 259                 | 16800        | 75    | 224                    |              |       |          |
| Metal Pallets                                     |  |  |              |       |   |              |       |                     | 2184         | 10    | 222                    |              |       |          |
| Lifting Plugs                                     |  |  |              |       |   |              |       |                     | 558          | 77    | 7                      |              |       |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>48861</b> |       |   | <b>33967</b> |       |                     | <b>30200</b> |       |                        |              |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 1305         |       |   | 3957         |       |                     | 3490         |       |                        |              |       |          |
| Quality Assurance                                 |  |  | 411          |       |   | 574          |       |                     | 303          |       |                        |              |       |          |
| Acceptance Testing                                |  |  | 1069         |       |   | 1370         |       |                     | 1200         |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>2785</b>  |       |   | <b>5901</b>  |       |                     | <b>4993</b>  |       |                        |              |       |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |   |              |       |                     |              |       |                        |              |       |          |
| <b>TOTAL</b>                                      |  |  | <b>51646</b> |       | <b>397</b>  | <b>39868</b> |       | <b>473</b>          | <b>35193</b> |       |                        |              |       |          |

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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: PROJ ARTY 155MM HE M795 (E66800)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location       | Contract Method and Type | Location of PCO          | Award Date | Date of First Delivery | QTY<br>x1000 | Unit Cost<br>\$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------------|--------------------------|--------------------------|------------|------------------------|--------------|-----------------|------------------|------------------|----------------|
| <b>Load, Assemble, and Pack</b>    |                               |                          |                          |            |                        |              |                 |                  |                  |                |
| FY 96                              | Mason & Hanger, Iowa AAP, IA  | Option                   | ARDEC, Picatinny Arsenal | Jun-97     | Oct-98                 | 130          | 141             | Yes              |                  |                |
| FY 97                              | Mason & Hanger, Iowa AAP, IA  | C/FFP                    | ARDEC, Picatinny Arsenal | Jan-98     | Oct-99                 | 84           | 141             | Yes              |                  | Sep-97         |
| FY 98                              | Unknown                       | C/FFP                    | ARDEC, Picatinny Arsenal | Jul-98     | Oct-00                 | 74           | 145             | Yes              |                  | Jan-98         |
| <b>Metal Parts</b>                 |                               |                          |                          |            |                        |              |                 |                  |                  |                |
| FY 96                              | Chamberlain, Scranton AAP, PA | Option                   | ARDEC, Picatinny Arsenal | Aug-96     | Jul-98                 | 132          | 231             | Yes              |                  |                |
| FY 97                              | Chamberlain, Scranton AAP, PA | C/FFP                    | ARDEC, Picatinny Arsenal | Feb-98     | Jul-99                 | 85           | 259             | Yes              |                  | Sep-97         |
| FY 98                              | Unknown                       | C/FFP                    | ARDEC, Picatinny Arsenal | Jul-98     | Oct-00                 | 75           | 224             | Yes              |                  | Jan-98         |
| <b>Metal Pallets</b>               |                               |                          |                          |            |                        |              |                 |                  |                  |                |
| FY 98                              | Unknown                       | C/FFP                    | ARDEC, Picatinny Arsenal | Aug-98     | May-00                 | 10           | 222             | Yes              |                  | Mar-98         |
| <b>Lifting Plugs</b>               |                               |                          |                          |            |                        |              |                 |                  |                  |                |
| FY 98                              | Unknown                       | C/FFP                    | ARDEC, Picatinny Arsenal | Aug-98     | May-00                 | 77           | 7               | Yes              |                  | Mar-98         |

REMARKS:





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG 120MM HEAT-MP-T M830A1 (E78007)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 52          | 13      |         | 9       | 3       |         |         |         |         |         |             | 77         |
| Gross Cost       | 186.6       | 43.8    | 0.0     | 30.9    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 269.1      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 186.6       | 43.8    | 0.0     | 30.9    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 269.1      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 186.6       | 43.8    | 0.0     | 30.9    | 7.8     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 269.1      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C | 3588        | 3369    |         | 3556    | 3008.0  |         |         |         |         |         |             |            |

**DESCRIPTION:**

The 120MM M830A1 Multi-Purpose (MP) cartridge is effective against light armor, air defense and materiel. This round is fired from the M256 120MM cannon mounted on the M1A1 Abrams tank. Appropriate targets include lightly armored vehicles with reactive armor, helicopters, buildings and bunkers, the side and rear aspects of tanks, and dismounted anti-tank and automatic weapons teams. The fixed round utilizes a combustible cartridge case affixed to a steel stub and loaded with granular propellant. The fin-stabilized, high chrome alloy steel projectile body is press-loaded with explosive, a precision copper liner and booster. The base element is armed during launch and initiated by an impact switch or proximity sensor, depending upon the operational mode selected by the tank crew. Arming is accomplished through the ballistic environment of firing, set back and deceleration. This item is code A, approved for service use. This item has not transitioned to SMCA and will be procured as actual cost in FY99.

**JUSTIFICATION:**

Procurement builds war reserve inventory in accordance with the Army's procurement goal. The production and fielding of the M830A1 provides increased accuracy when compared to the currently fielded M830 High Explosive Anti-Tank Multi-Purpose with Tracer (HEAT-MP-T) cartridge, due to reduced time of flight. For the first time ever, the M830A1 provides the individual tank crew with the self-defense capability to engage and defeat attacking helicopter platforms. The M830A1 replaces the currently fielded M830 round to provide significantly enhanced capability to the 120MM gun tank fleet.

Acquisition Manager: Project Manager, Tank Main Armaments (PM-TMAS).

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG 120MM HEAT-MP-T M830A1 (E78007) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|--|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$Million    | Each | \$000  | \$Million    | Each | \$000               | \$Million    | Each | \$000                  | \$Million    | Each | \$000    |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Complete Round                                    |  |  |              |      |  | 26525        | 8700 | 3049                | 6596         | 2600 | 2537                   |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |  | <b>26525</b> |      |                     | <b>6596</b>  |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |      |                     |              |      |                        |              |      |          |
| Production Engineering                            |  |  |              |      |  | 2858         |      |                     | 580          |      |                        |              |      |          |
| Quality Assurance                                 |  |  |              |      |  | 910          |      |                     | 325          |      |                        |              |      |          |
| Acceptance Testing                                |  |  |              |      |  | 650          |      |                     | 320          |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |  | <b>4418</b>  |      |                     | <b>1225</b>  |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | <b>30943</b> |      | <b>3556</b>         | <b>7821</b>  |      | <b>3008</b>            |              |      |          |



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

Date:  
February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: CTG 120MM HEAT-MP-T M830A1 (E78007)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location                | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$000 | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--|--------------------------|-----------------|------------|------------------------|----------|-----------------|------------------|------------------|----------------|
| 1. COMPLETE ROUND<br>FY97          | Alliant Techsystems<br>Minneapolis, MN | SS/FP                    | AMCCOM          | Sep-97     | Aug-98                 | 8700     | 3049            | yes              | no               |                |
| FY98                               | Alliant Techsystems<br>Minneapolis, MN | SS/Option                | AMCCOM          | Jan-98     | Jan-99                 | 2600     | 2537            | yes              | no               |                |

REMARKS:



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

Date:

February 1998

Appropriation / Budget Activity/Serial No:

PROCUREMENT OF AMMUNITION / 1 / Ammunition

P-1 Item Nomenclature:

SIGNALS, ALL TYPES (E46900)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 306.8       | 0.7     | 17.8    | 1.3     | 7.7     | 13.0    | 13.6    | 15.3    | 13.9    | 14.0    | 0.0         | 404.1      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 306.8       | 0.7     | 17.8    | 1.3     | 7.7     | 13.0    | 13.6    | 15.3    | 13.9    | 14.0    | 0.0         | 404.1      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 306.8       | 0.7     | 17.8    | 1.3     | 7.7     | 13.0    | 13.6    | 15.3    | 13.9    | 14.0    | 0.0         | 404.1      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This budget line includes Signals ALL TYPES.

| Exhibit P-5, Weapon<br>Ammo Cost Analysis |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |             |                | P-1 Line Item Nomenclature:<br>SIGNALS, ALL TYPES (E46900) |             |                | Weapon System Type: |             |                | Date:<br>February 1998 |             |                |
|---|----------|--|-------------|----------------|--|-------------|----------------|---------------------|-------------|----------------|------------------------|-------------|----------------|
| Ammunition<br>Cost Elements               | ID<br>CD | FY 96  |             |                | FY 97  |             |                | FY 98               |             |                | FY 99                  |             |                |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$ |
| SMOKE POT PRACTICE M8                     |          | 8933   | 23          |                |  |             | 5160           | 13000               | 406.00      | 6899           | 17000                  | 417.00      |                |
| SIGNAL ILLUM GND WS PARA M127A1           |          | 2652   | 60040       | 44.17          | 354  | 9613        | 36.82          | 1763                | 42992       | 41.01          | 2098                   | 51531       | 40.71          |
| FLARE SURFACE TRIP M49 SERIES             |          |  |             |                | 620  | 29971       | 20.69          | 763                 | 25191       | 30.29          | 2293                   | 124537      | 18.41          |
| SIGNAL SMOKE & ILLUM MK 124 MOD 0         |          |  |             |                | 318  | 8197        | 38.79          |                     |             |                | 735                    | 14810       | 49.63          |
| SIGNAL ILLUM GND WS CLUSTER M159          |          | 1750   | 39988       | 43.76          |  |             |                |                     |             |                | 960                    | 22669       | 42.35          |
| SIGNAL ILLUM GRD GS CLUSTER<br>M125A1     |          | 1506   | 34413       | 43.76          |  |             |                |                     |             |                |                        |             |                |
| SIGNAL KIT PERSONNEL DISTRESS RED         |          | 2957   | 32501       | 91.00          |  |             |                |                     |             |                |                        |             |                |
| <b>TOTAL</b>                              |          | <b>17798</b>   |             |                | <b>1292</b>  |             |                | <b>7686</b>         |             |                | <b>12985</b>           |             |                |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: SMOKE POT PRACTICE M8 (E62900)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 23      |         | 13      | 17      | 17      | 18      | 17      | 17      |             | 122        |
| Gross Cost       | 148.0       | 0.0     | 8.9     | 0.0     | 5.2     | 6.9     | 6.8     | 7.3     | 7.0     | 7.1     | 0.0         | 197.2      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 148.0       | 0.0     | 8.9     | 0.0     | 5.2     | 6.9     | 6.8     | 7.3     | 7.0     | 7.1     | 0.0         | 197.2      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 148.0       | 0.0     | 8.9     | 0.0     | 5.2     | 6.9     | 6.8     | 7.3     | 7.0     | 7.1     | 0.0         | 197.2      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M8 Smoke Pot is a five-gallon metal pail containing about 25 pounds of environmentally acceptable smoke mixture. It is initiated by a pyrotechnic delay igniting fuze. After ignition, about a 25 second delay, a dense smoke cloud is produced for screening purposes to conceal troop, vehicle, or other march movements. It is deployed in a similar manner as the service smoke pots, M4 series and M5. It is used by the individual soldier in squad, company and batallion units. This item is code B, not approved for service use. This item will be procured as actual cost beginning in FY99.

**JUSTIFICATION:**

This training pot is urgently needed to replace the current M4A2 HC filled munition with a training munition with a reduced hazard for troops exposed during training. This is a Materiel Change program number 1-88-09-7331.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>SMOKE POT PRACTICE M8 (E62900) |              |      | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |            |
|---|--|--|--------------|-------|---|--------------|------|---------------------|--------------|-------|------------------------|--------------|-------|------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |            |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost   |
|   |  |  | \$000        | Each  | \$  | \$000        | Each | \$                  | \$000        | Each  | \$                     | \$000        | Each  | \$         |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |              |      |                     |              |       |                        |              |       |            |
| Load, Assemble, and Pack                          |  |  | 2728         | 21344 | 127.81  |              |      |                     | 1661         | 12500 | 134.00                 | 2419         | 16500 | 147.00     |
| Chemicals   |  |  | 2837         | 22198 | 127.80  |              |      |                     | 1648         | 12700 | 130.00                 | 2201         | 16750 | 131.00     |
| Metal Parts                                       |  |  | 2649         | 22198 | 119.34  |              |      |                     | 1537         | 12700 | 121.00                 | 2056         | 16750 | 123.00     |
| <b>SubTotal AMMO Hardware</b>                     |  |  | <b>8214</b>  |       | <b>375</b>  |              |      |                     | <b>4846</b>  |       | <b>393</b>             | <b>6676</b>  |       | <b>401</b> |
| <b>Production Support Costs</b>                   |  |  |              |       |   |              |      |                     |              |       |                        |              |       |            |
| Production Engineering                            |  |  | 250          |       |   |              |      |                     | 145          |       |                        | 189          |       |            |
| Quality Assurance                                 |  |  | 11           |       |   |              |      |                     | 13           |       |                        | 16           |       |            |
| Acceptance Testing                                |  |  | 92           |       |   |              |      |                     | 60           |       |                        |              |       |            |
| Interim Transportation                            |  |  | 30           |       |   |              |      |                     | 13           |       |                        | 18           |       |            |
| Industrial Stock Support                          |  |  | 336          |       |   |              |      |                     | 83           |       |                        |              |       |            |
| CAWCF Gain/Loss Surcharge                         |  |  |              |       |   |              |      |                     |              |       |                        |              |       |            |
| <b>SubTotal Prod. Support</b>                     |  |  | <b>719</b>   |       | <b>34</b>   |              |      |                     | <b>314</b>   |       | <b>34</b>              | <b>223</b>   |       | <b>13</b>  |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |   |              |      |                     |              |       |                        |              |       |            |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |   |              |      |                     |              |       |                        |              |       |            |
| <b>TOTAL</b>                                      |  |  | <b>8933</b>  |       | <b>409</b>  |              |      |                     | <b>5160</b>  |       | <b>427</b>             | <b>6899</b>  |       | <b>414</b> |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: **PROCUREMENT OF AMMUNITION / 1 / Ammunition**      Weapon System Type:      P-1 Line Item Nomenclature: **SMOKE POT PRACTICE M8 (E62900)**

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO    | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|--------------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| <b>Load, Assemble, and Pack</b>    |                         |                          |                    |            |                        |          |              |                  |                  |                |
| FY 96                              | Pine Bluff Arsenal      | SS/GOGO                  | CBDCOM             | Jan-96     | Oct-97                 | 21344    | 128          |                  |                  |                |
| FY 98                              | Pine Bluff Arsenal      | SS/GOGO                  | CBDCOM             | Jan-98     | Oct-99                 | 12500    | 134          |                  |                  |                |
| FY 99                              | Pine Bluff Arsenal      | SS/GOGO                  | CBDCOM             | Jan-99     | May-00                 | 16500    | 147          |                  |                  |                |
| <b>Chemicals</b>                   |                         |                          |                    |            |                        |          |              |                  |                  |                |
| FY 96                              | Unknown                 | C/FP                     | Pine Bluff Arsenal | Jul-96     | Jul-97                 | 22198    | 128          |                  |                  |                |
| FY 98                              | Unknown                 | C/FP                     | Pine Bluff Arsenal | Jul-98     | Jul-99                 | 12700    | 130          |                  |                  |                |
| FY 99                              | Unknown                 | C/FP                     | Pine Bluff Arsenal | Jul-99     | Oct-00                 | 16750    | 131          |                  |                  |                |
| <b>Metal Parts</b>                 |                         |                          |                    |            |                        |          |              |                  |                  |                |
| FY 96                              | Unknown                 | C/FP                     | Pine Bluff Arsenal | Jul-96     | Jul-97                 | 22198    | 119          |                  |                  |                |
| FY 98                              | Unknown                 | C/FP                     | Pine Bluff Arsenal | Jul-98     | Jul-99                 | 12700    | 121          |                  |                  |                |
| FY 99                              | Unknown                 | C/FP                     | Pine Bluff Arsenal | Jul-99     | Oct-00                 | 16750    | 123          |                  |                  |                |

REMARKS:







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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: SIGNAL ILLUM GND WS PARA M127A1 (E46800)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 9940        |         | 60      | 10      | 43      | 52      | 67      | 67      | 68      | 68      |             | 10375      |
| Gross Cost       | 97.0        | 0.3     | 2.7     | 0.4     | 1.8     | 2.1     | 2.7     | 2.7     | 2.8     | 2.9     | 0.0         | 115.3      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 97.0        | 0.3     | 2.7     | 0.4     | 1.8     | 2.1     | 2.7     | 2.7     | 2.8     | 2.9     | 0.0         | 115.3      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 97.0        | 0.3     | 2.7     | 0.4     | 1.8     | 2.1     | 2.7     | 2.7     | 2.8     | 2.9     | 0.0         | 115.3      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This signal consists of a parachute suspended illuminant assembly, and a rocket motor propulsion assembly contained in a hand-held aluminum launching tube, deployed by the individual soldier. The base of the launching tube contains a primer and an initiating charge. Stabilizing fins on the rocket are folded parallel to the axis of the signal. The burning time is 40 seconds and candlepower is 125,000. Pyrotechnic charge is illuminant composition. Initiation charge, propelling charge, and expelling charge consist of black powder. The length is 10.16 inches and diameter is 1.67 inches. This signal is packed 36 each per wooden box. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1961

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |       | P-1 Line Item Nomenclature:<br>SIGNAL ILLUM GND WS PARA M127A1<br>(E46800) |              |      | Weapon System Type: |              |       | Date:<br>February 1998 |              |       |          |
|---|--|--|--------------|-------|--|--------------|------|---------------------|--------------|-------|------------------------|--------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |  | <b>FY 97</b> |      |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |       |          |
|   |  | CD   | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty   | UnitCost |
|   |  |  | \$000        | Each  | \$   | \$000        | Each | \$                  | \$000        | Each  | \$                     | \$000        | Each  | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |  |              |      |                     |              |       |                        |              |       |          |
| Load, Assemble and Pack                           |  |  | 2037         | 60040 | 33.94  | 293          | 9613 | 30.53               | 1484         | 42992 | 34.51                  | 1984         | 51531 | 38.49    |
| Box Metal M458                                    |  |  | 46           | 2528  | 18.12  | 6            | 405  | 15.12               | 38           | 1810  | 20.89                  | 44           | 2170  | 20.42    |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 2083         |       |  | 299          |      |                     | 1522         |       |                        | 2028         |       |          |
| <b>Production Support Costs</b>                   |  |  |              |       |  |              |      |                     |              |       |                        |              |       |          |
| Production Engineering                            |  |  | 65           |       |  | 13           |      |                     | 155          |       |                        | 62           |       |          |
| Quality Assurance                                 |  |  | 3            |       |  |              |      |                     | 4            |       |                        | 11           |       |          |
| Acceptance Testing                                |  |  | 24           |       |  | 3            |      |                     | 17           |       |                        |              |       |          |
| Interim Transportation                            |  |  | 8            |       |  | 3            |      |                     | 11           |       |                        | 1            |       |          |
| Industrial Stock Support                          |  |  | 88           |       |  | 1            |      |                     | 54           |       |                        | 40           |       |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 381          |       |  | 35           |      |                     |              |       |                        |              |       |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 569          |       |  | 55           |      |                     | 241          |       |                        | 114          |       |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |  |              |      |                     |              |       |                        |              |       |          |
| *Government Furnished Material                    |  |  |              |       |  |              |      |                     |              |       |                        | -44          |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |       |  |              |      |                     |              |       |                        | -44          |       |          |
| <b>TOTAL</b>                                      |  |  | 2652         |       | 44.17  | 354          |      | 36.82               | 1763         |       | 41.01                  | 2098         |       | 40.71    |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: SIGNAL ILLUM GND WS PARA M127A1 (E46800)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location              | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|--------------------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Load, Assemble and Pack<br>FY 96   | Security Signals Inc.<br>Cordova, TN | C/FP                     | IOC             | Aug-96     | Apr-98                 | 60040    | 33.94        | Yes              |                  |                |
| FY 97                              | Security Signals Inc.<br>Cordova, TN | C/FP                     | IOC             | Oct-97     | Jun-98                 | 9613     | 30.53        | Yes              |                  | Jul-97         |
| FY 98                              | Security Signals Inc.<br>Cordova, TN | C/FP                     | IOC             | Jan-98     | Oct-98                 | 42992    | 34.51        | Yes              |                  | Oct-97         |
| FY 99                              | TBS                                  | C/FP                     | IOC             | Mar-99     | Jan-00                 | 51531    | 38.49        | Yes              |                  | Oct-98         |
| *Box Metal M458<br>FY 96           | Conco Inc.<br>Louisville, KY         | C/FP                     | IOC             | Jun-96     | Dec-96                 | 2528     | 18.12        | Yes              |                  |                |
| FY 97                              | TBS                                  | C/FP                     | IOC             | Jan-98     | Jun-98                 | 405      | 15.12        | Yes              |                  | Oct-97         |
| FY 98                              | TBS                                  | C/FP                     | IOC             | Jul-98     | Oct-98                 | 1810     | 20.89        | Yes              |                  | Apr-98         |
| FY 99                              | Stock Issue                          | N/A                      | N/A             | N/A        | N/A                    | 2170     | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To Be Selected  
 \*Government Furnished Material

| FY 98 / 99 BUDGET PRODUCTION SCHEDULE |     |     |      |               |                       |                     | P-1 Item Nomenclature:<br>SIGNAL ILLUM GND WS PARA M127A1 (E46800) |     |     |     |     |     |     |     |       |       |       |       |                  | Date:<br>February 1998 |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|---------------------------------------|-----|-----|------|---------------|-----------------------|---------------------|--|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|------------------|------------------------|-------|------|-----|-----|-----|------|-----|-----|-----|-----|-----------|--|--|--|-------|--|
| COST ELEMENTS                         | MFR | FY  | SERV | PROC QTY Each | ACCEP. PRIOR TO 1 OCT | BAL DUE AS OF 1 OCT | Fiscal Year 98   |     |     |     |     |     |     |     |       |       |       |       | Fiscal Year 99   |                        |       |      |     |     |     |      |     |     |     |     | L A T E R |  |  |  |       |  |
|                                       |     |     |      |               |                       |                     | Calendar Year 98   |     |     |     |     |     |     |     |       |       |       |       | Calendar Year 99 |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       |     |     |      |               |                       |                     | OCT  | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN   | JUL   | AUG   | SEP   | OCT              | NOV                    | DEC   | JAN  | FEB | MAR | APR | MAY  | JUN | JUL | AUG | SEP |           |  |  |  |       |  |
| Load, Assemble and Pack               |     |     |      |               |                       |                     |  |     |     |     |     |     |     |     |       |       |       |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       | 1   | 96P | A    | 60.00         |                       | 60.00               |  |     |     |     |     |     |     |     | 20.00 | 32.00 | 8.00  |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       | 1   | 97  | A    | 10.00         |                       | 10.00               |  |     |     |     |     |     |     |     |       | 10.00 |       |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       | 1   | 98  | A    | 43.00         |                       | 43.00               |  |     |     |     |     |     |     |     |       |       |       | 10.00 | 10.00            | 10.00                  | 10.00 | 3.00 |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       | 2   | 99  | A    | 52.00         |                       | 52.00               |  |     |     |     |     |     |     |     |       |       |       |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  | 52.00 |  |
|                                       | 1   | 98  | CG   | 4.00          |                       | 4.00                |  |     |     |     |     |     |     |     |       |       |       |       |                  |                        |       |      |     |     |     | 4.00 |     |     |     |     |           |  |  |  |       |  |
|                                       | 2   | 99  | CG   | 3.00          |                       | 3.00                |  |     |     |     |     |     |     |     |       |       |       |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  | 3.00  |  |
|                                       |     | 96P | ALL  | 60.00         |                       | 60.00               |  |     |     |     |     |     |     |     | 20.00 | 32.00 | 8.00  |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       |     | 97  | ALL  | 10.00         |                       | 10.00               |  |     |     |     |     |     |     |     |       | 10.00 |       |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       |     | 98  | ALL  | 47.00         |                       | 47.00               |  |     |     |     |     |     |     |     |       |       | 10.00 | 10.00 | 10.00            | 10.00                  | 7.00  |      |     |     |     |      |     |     |     |     |           |  |  |  |       |  |
|                                       |     | 99  | ALL  | 55.00         |                       | 55.00               |  |     |     |     |     |     |     |     |       |       |       |       |                  |                        |       |      |     |     |     |      |     |     |     |     |           |  |  |  | 55.00 |  |

  

| 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   | Security Signals, TN | 9.00             | 30.00 | 75.00 |             |            | INITIAL         | 6            | 6                | 12                 | 18      |  |
| 2   | To Be Selected       | 9.00             | 30.00 | 75.00 |             |            | REORDER         | 6            | 6                | 12                 | 18      |  |
|     |                      |                  |       |       |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | REORDER         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | REORDER         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | REORDER         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | INITIAL         |              |                  |                    |         |  |
|     |                      |                  |       |       |             |            | REORDER         |              |                  |                    |         |  |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: FLARE SURFACE TRIP M49 SERIES (E49200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 14924       |         |         | 30      | 25      | 125     | 50      | 41      | 41      | 41      |             | 15277      |
| Gross Cost       | 43.4        | 0.0     | 0.0     | 0.6     | 0.8     | 2.3     | 1.0     | 0.8     | 0.8     | 0.8     | 0.0         | 50.5       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 43.4        | 0.0     | 0.0     | 0.6     | 0.8     | 2.3     | 1.0     | 0.8     | 0.8     | 0.8     | 0.0         | 50.5       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 43.4        | 0.0     | 0.0     | 0.6     | 0.8     | 2.3     | 1.0     | 0.8     | 0.8     | 0.8     | 0.0         | 50.5       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M49 Trip Flare consists of an illuminant assembly, cover loading assembly, and mounting bracket assembly. The M49 is activated by tripping a wire attached to a trigger mechanism. Upon activation, the flare is ignited providing a light intensity of 35,000 candle power for approximately one minute. The M49 is used to provide warning of infiltrating troops. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training and builds a war reserve level in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1975

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>FLARE SURFACE TRIP M49 SERIES<br>(E49200) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |        |          |
|---|--|--|--------------|------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|--------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |        |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty    | UnitCost |
|   |  |  | \$000        | Each | \$   | \$000        | Each  | \$                  | \$000        | Each  | \$                     | \$000        | Each   | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |  |              |       |                     |              |       |                        |              |        |          |
| Complete Round                                    |  |  |              |      |  | 526          | 29971 | 17.54               | 658          | 25191 | 26.14                  | 2199         | 124537 | 17.66    |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |  | 526          |       |                     | 658          |       |                        | 2199         |        |          |
| <b>Production Support Costs</b>                   |  |  |              |      |  |              |       |                     |              |       |                        |              |        |          |
| Production Engineering                            |  |  |              |      |  | 21           |       |                     | 67           |       |                        | 39           |        |          |
| Quality Assurance                                 |  |  |              |      |  | 1            |       |                     | 2            |       |                        | 11           |        |          |
| Acceptance Testing                                |  |  |              |      |  | 6            |       |                     | 8            |       |                        |              |        |          |
| Interim Transportation                            |  |  |              |      |  | 5            |       |                     | 5            |       |                        |              |        |          |
| Industrial Stock Support                          |  |  |              |      |  |              |       |                     | 23           |       |                        | 44           |        |          |
| CAWCF Gain/Loss Surcharge                         |  |  |              |      |  | 61           |       |                     |              |       |                        |              |        |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |  | 94           |       |                     | 105          |       |                        | 94           |        |          |
| <b>TOTAL</b>                                      |  |  |              |      |  | 620          |       | 20.69               | 763          |       | 30.29                  | 2293         |        | 18.41    |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: FLARE SURFACE TRIP M49 SERIES (E49200)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location    | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|----------------------------|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Complete Round<br>FY 97            | Lance Ordnance<br>Mayo, FL | C/FP                     | IOC             | May-97     | Feb-98                 | 29971    | 17.54        | Yes              |                  | Feb-97         |
| FY 98                              | Lance Ordnance<br>Mayo, FL | C/FP                     | IOC             | Dec-97     | Apr-98                 | 25191    | 26.14        | Yes              |                  | Oct-97         |
| FY 99                              | TBS                        | C/FP                     | IOC             | Mar-99     | May-00                 | 124537   | 17.66        | Yes              |                  | Oct-98         |

REMARKS: TBS - To Be Selected





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: PROJ ARTY 155MM SADARM M898 (E66300)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             | 110     | 150     | 600     | 507     | 550     | 520     | 1450    | 1820    | 1926    | 42367       | 50000      |
| Gross Cost       | 0.0         | 29.8    | 44.9    | 93.6    | 66.4    | 56.5    | 58.3    | 72.6    | 79.6    | 84.4    | 1319.1      | 1905.2     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 29.8    | 44.9    | 93.6    | 66.4    | 56.5    | 58.3    | 72.6    | 79.6    | 84.4    | 1319.1      | 1905.2     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 29.8    | 44.9    | 93.6    | 66.4    | 56.5    | 58.3    | 72.6    | 79.6    | 84.4    | 1319.1      | 1905.2     |
| Flyaway U/C      |             | 0.264   | 0.294   | 0.155   | 0.129   | 0.101   | 0.111   | 0.049   | 0.043   | 0.043   | 0.031       | 0.038      |
| Wpn Sys Proc U/C |             | 0.271   | 0.299   | 0.156   | 0.131   | 0.103   | 0.112   | 0.050   | 0.044   | 0.044   | 0.031       | 0.038      |

DESCRIPTION: The 155mm Sense and Destroy Armor (SADARM) projectile will provide an enhanced counterbattery and anti-armored vehicle capability to attack targets well beyond the Forward Line of Troops (FLOT). The SADARM projectile will function in a fire and forget mode. This indirect fire mission can be accomplished under inclement weather, degraded battlefield conditions and Nuclear, Biological, Chemical (NBC) environments, both day and night. The SADARM munitions are designed for use against self-propelled howitzers, lightly armored personnel carriers and other stationary lightly armored threat vehicles encountered in counterfire, close support, Suppression of Enemy Air Defense (SEAD) and interdiction. The 155mm SADARM is delivered in the same manner as other 155mm munitions. Once dispensed from its carrier, the submunition detects targets using dual-mode millimeter wave and infrared sensors, and fires an explosively formed penetrator through the top of the target. The projectile is compatible with the momentum limits of standard and developmental 155mm Howitzers including Crusader and LW155 Towed. It is ballistically similar to the cargo family of 155mm ammunition. Operational interface with other systems will be accomplished through Tactical Fire Control System (TACFIRE), Advanced Field Artillery Tactical Data System (AFATDS), and appropriate target acquisition sources. The item is Code A, approved for limited service use.

JUSTIFICATION: The FY 1999 budget provides for production of war reserve requirements. The SADARM procurement will provide pinpoint accuracy to destroy hardened targets and will reduce consumption of artillery ammunition. SADARM will support the Howitzer M109 series, including Paladin and M198 Howitzer systems

Type Classification Dates: Low Rate Production: January 1995  
 Standard: September 1998

Milestone Approval: Milestone IIIA (DAB): March 1995  
 Milestone III (ASARC): December 1998

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |             |                | P-1 Line Item Nomenclature:<br>PROJ ARTY 155MM SADARM M898<br>(E66300) |             |                | Weapon System Type: |             |                | Date:<br>February 1998 |             |                |
|---|----------|--|-------------|----------------|--|-------------|----------------|---------------------|-------------|----------------|------------------------|-------------|----------------|
| <b>Ammunition<br/>Cost Elements</b>               | ID<br>CD | <b>FY 96</b>   |             |                | <b>FY 97</b>   |             |                | <b>FY 98</b>        |             |                | <b>FY 99</b>           |             |                |
|   |          | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000   | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000  | Qty<br>Each | UnitCost<br>\$ | TotalCost<br>\$000     | Qty<br>Each | UnitCost<br>\$ |
| <b>AMMUNITION HARDWARE</b>                        | A        |  |             |                |  |             |                |                     |             |                |                        |             |                |
| Complete Round                                    |          | 37739  | 150         | 251593         | 80631  | 600         | 134385         | 51364               | 507         | 101310         | 47683                  | 550         | 86696          |
| Metal Pallet                                      |          |  |             |                |  |             |                |                     |             |                | 15                     | 72          | 208            |
| <b>SubTotal AMMO Hardware</b>                     |          | <b>37739</b>   |             |                | <b>80631</b>   |             |                | <b>51364</b>        |             |                | <b>47698</b>           |             |                |
| <b>Production Support Costs</b>                   |          |  |             |                |  |             |                |                     |             |                |                        |             |                |
| Production Engineering                            |          | 4279   |             |                | 5360   |             |                | 5081                |             |                | 4941                   |             |                |
| Quality Assurance                                 |          | 166  |             |                | 261  |             |                | 260                 |             |                | 259                    |             |                |
| Acceptance Testing                                |          |  |             |                | 1050   |             |                | 1745                |             |                | 1745                   |             |                |
| <b>SubTotal Prod. Support</b>                     |          | <b>4445</b>  |             |                | <b>6671</b>  |             |                | <b>7086</b>         |             |                | <b>6945</b>            |             |                |
| <b>COST - Nonrecurring</b>                        |          |  |             |                |  |             |                |                     |             |                |                        |             |                |
| First Article Testing                             |          | 909  |             |                | 453  |             |                |                     |             |                |                        |             |                |
| Value Engineering                                 |          |  |             |                | 1707   |             |                |                     |             |                |                        |             |                |
| Live Fire Testing                                 |          | 65   |             |                | 10   |             |                | 1017                |             |                |                        |             |                |
| Initial Production Testing                        |          | 10   |             |                | 3117   |             |                | 2007                |             |                |                        |             |                |
| Cost Reduction/Reliability Growth                 |          | 1735   |             |                | 1000   |             |                | 4911                |             |                | 1899                   |             |                |
| <b>SubTotal COST-Nonrecurring</b>                 |          | <b>2719</b>  |             |                | <b>6287</b>  |             |                | <b>7935</b>         |             |                | <b>1899</b>            |             |                |
| <b>TOTAL</b>                                      |          | <b>44903</b>   |             | <b>299353</b>  | <b>93589</b>   |             | <b>155982</b>  | <b>66385</b>        |             | <b>130937</b>  | <b>56542</b>           |             | <b>102804</b>  |

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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 Weapon System Type:  
 P-1 Line Item Nomenclature: PROJ ARTY 155MM SADARM M898 (E66300)

| WBS Cost Elements:<br>Fiscal Years | Contractor and Location | Contract Method and Type | Location of PCO          | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
|------------------------------------|-------------------------|--------------------------|--------------------------|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Complete Round                     |                         |                          |                          |            |                        |          |              |                  |                  |                |
| FY 96                              | Aerojet, Azusa CA       | OPTION                   | ARDEC, Picatinny Arsenal | May-96     | Mar-98                 | 150      | 251593       | Yes              |                  |                |
| FY 97                              | Aerojet, Azusa CA       | SS/FFP                   | ARDEC, Picatinny Arsenal | Feb-97     | Jun-98                 | 600      | 134385       | Yes              |                  | Jul-96         |
| FY 98                              | Aerojet, Azusa CA       | OPTION                   | ARDEC, Picatinny Arsenal | Mar-98     | Jun-99                 | 507      | 101310       | Yes              |                  |                |
| FY 99                              | Aerojet, Azusa CA       | SS/FFP                   | ARDEC, Picatinny Arsenal | Jan-99     | Jun-00                 | 550      | 86696        | Yes              |                  | May-98         |
| Metal Pallet                       |                         |                          |                          |            |                        |          |              |                  |                  |                |
| FY 99                              | Nomura, Rock Island IL  | SS/FFP                   | ARDEC, Picatinny Arsenal | Jan-99     | Jun-99                 | 72       | 208          | Yes              |                  |                |

REMARKS:











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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: PROJ ARTY 155MM HE M107 (E27601)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         | 26605       |         |         |         |         | 124     | 163     | 317     | 387     | 339     |             | 27935      |
| Gross Cost       | 950.7       | 0.0     | 0.0     | 0.0     | 0.0     | 25.7    | 34.1    | 66.9    | 82.6    | 73.4    | 0.0         | 1233.4     |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 950.7       | 0.0     | 0.0     | 0.0     | 0.0     | 25.7    | 34.0    | 66.9    | 82.6    | 73.4    | 0.0         | 1233.3     |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 950.7       | 0.0     | 0.0     | 0.0     | 0.0     | 25.7    | 34.0    | 66.9    | 82.6    | 73.4    | 0.0         | 1233.3     |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

This is a multi-purpose high explosive projectile fired from 155mm howitzers. It is used for blast effect and fragmentation. The projectile may be loaded with either 14.6 pounds of TNT or 15.4 pounds of Composition B explosives. The normal cavity model will not accommodate a proximity-type fuze. The deep-cavity model has a supplementary charge of .3 pounds which may be removed to allow the use of proximity fuzes. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.

**JUSTIFICATION:**

This is a training standard item used in both training and combat. FY 99 procurement supports annual peacetime training requirements and builds war reserve inventory in accordance with the Army's procurement goals.

**TYPE CLASSIFICATION DATE:**

1958

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |          | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |       |          | P-1 Line Item Nomenclature:<br>PROJ ARTY 155MM HE M107 (E27601) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----------|--|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               | ID<br>CD | <b>FY 96</b>   |       |          | <b>FY 97</b>  |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
|   |          | TotalCost  | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |          | \$000  | x1000 | \$       | \$000   | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000 | \$       |
| <b>AMMUNITION HARDWARE</b>                        |          |  |       |          |   |       |          |                     |       |          |                        |       |          |
| Load, Assemble and Pack                           |          |  |       |          |   |       |          |                     |       |          | 9903                   | 124   | 79.86    |
| Proj M107 MPTS                                    |          |  |       |          |   |       |          |                     |       |          | 13299                  | 101   | 131.43   |
| *Proj MPTS M107                                   |          |  |       |          |   |       |          |                     |       |          | 2707                   | 25    | 107.00   |
| *Comp B Type I Grade A (LB)                       |          |  |       |          |   |       |          |                     |       |          | 3114                   | 2009  | 1.55     |
| *TNT Type I, Flake (LB)                           |          |  |       |          |   |       |          |                     |       |          | 1189                   | 843   | 1.41     |
| Chg Suppl LAP                                     |          |  |       |          |   |       |          |                     |       |          | 496                    | 126   | 3.92     |
| Liner, Fuze Cavity                                |          |  |       |          |   |       |          |                     |       |          | 44                     | 126   | 0.35     |
| Plug, Shock Attenuating                           |          |  |       |          |   |       |          |                     |       |          | 625                    | 126   | 4.94     |
| Grommet   |          |  |       |          |   |       |          |                     |       |          | 130                    | 128   | 1.02     |
| <b>SubTotal AMMO Hardware</b>                     |          |  |       |          |   |       |          |                     |       |          | 31507                  |       |          |
| <b>Production Support Costs</b>                   |          |  |       |          |   |       |          |                     |       |          |                        |       |          |
| Production Engineering                            |          |  |       |          |   |       |          |                     |       |          |                        |       |          |
| Quality Assurance                                 |          |  |       |          |   |       |          |                     |       |          | 79                     |       |          |
| Acceptance Testing                                |          |  |       |          |   |       |          |                     |       |          | 127                    |       |          |
| Interim Transportation                            |          |  |       |          |   |       |          |                     |       |          | 318                    |       |          |
| Industrial Stock Support                          |          |  |       |          |   |       |          |                     |       |          | 628                    |       |          |
| <b>SubTotal Prod. Support</b>                     |          |  |       |          |   |       |          |                     |       |          | 1152                   |       |          |
| <b>COST - Nonrecurring</b>                        |          |  |       |          |   |       |          |                     |       |          |                        |       |          |
| *Government Furnished Material                    |          |  |       |          |   |       |          |                     |       |          | -7009                  |       |          |
| <b>SubTotal COST-Nonrecurring</b>                 |          |  |       |          |   |       |          |                     |       |          | -7009                  |       |          |
| <b>TOTAL</b>                                      |          |  |       |          |   |       |          |                     |       |          | 25650                  |       | 206.85   |

| Exhibit P-5a, Budget Procurement History and Planning  |  |                          |                 |            |                        |           |              |   |                  | Date:          |  |
|--|--|--------------------------|-----------------|------------|------------------------|-----------|--------------|---|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition     |  |                          |                 |            | Weapon System Type:    |           |              | P-1 Line Item Nomenclature:<br>PROJ ARTY 155MM HE M107 (E27601) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                          | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY x1000 | Unit Cost \$ | Specs Avail Now?  | Date Revsn Avail | RFP Issue Date |  |
| Load, Assemble and Pack<br>FY 99   | TBS  | C/FP                     | IOC             | Mar-99     | Mar-00                 | 124       | 79.86        | Yes   |                  | Oct-98         |  |
| Proj M107 MPTS **<br>FY 99   | TBS  | C/FP                     | IOC             | Mar-99     | Jan-00                 | 101       | 131.43       | Yes   |                  | Oct-98         |  |
| *Proj MPTS M107<br>FY 99   | Stock Issue                                      | N/A                      | N/A             | N/A        | N/A                    | 25        | N/A          | N/A   |                  | N/A            |  |
| *Comp B Type I Grade A (LB)<br>FY 99   | Stock Issue                                      | N/A                      | N/A             | N/A        | N/A                    | 2009      | N/A          | N/A   |                  | N/A            |  |
| *TNT Type I, Flake (LB)<br>FY 99   | Stock Issue                                      | N/A                      | N/A             | N/A        | N/A                    | 843       | N/A          | N/A   |                  | N/A            |  |
| Chg Suppl LAP<br>FY 99   | Day & Zimmerman (Lone Star AAP)<br>Texarkana, TX | SS/CPFF                  | IOC             | Mar-99     | Jan-00                 | 126       | 3.92         | Yes   |                  | Oct-98         |  |
| Liner, Fuze Cavity<br>FY 99  | TBS  | C/FP                     | IOC             | Mar-99     | Jan-00                 | 126       | 0.35         | Yes   |                  | Oct-98         |  |
| Plug, Shock Attenuating<br>FY 99   | TBS  | C/FP                     | IOC             | Mar-99     | Jan-00                 | 126       | 4.94         | Yes   |                  | Oct-98         |  |
| Grommet<br>FY 99   | TBS  | C/FP                     | IOC             | Mar-99     | Jan-00                 | 128       | 1.02         | Yes   |                  | Oct-98         |  |
| <b>REMARKS:</b> *Government Furnished Material<br>**Pacing Component<br>TBS - To Be Selected |  |                          |                 |            |                        |           |              |   |                  |                |  |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 120MM FULL RANGE PRACTICE M931 (E25507)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 37      | 127     | 78      | 97      | 96      | 93      | 94      | 92      |             | 714        |
| Gross Cost       | 0.0         | 0.0     | 18.2    | 50.9    | 31.7    | 39.7    | 39.9    | 39.4    | 40.2    | 39.5    | 0.0         | 299.6      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 18.2    | 50.9    | 31.7    | 39.7    | 39.9    | 39.4    | 42.0    | 39.5    | 0.0         | 301.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 18.2    | 50.9    | 31.7    | 39.7    | 39.9    | 39.4    | 42.0    | 39.5    | 0.0         | 301.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The M931 120mm mortar cartridge is a low-cost, full range, practice round that will replace a percentage of the standard High Explosive (HE) rounds used in 120mm mortar training. It consists of a M781 point detonating practice fuze which simulates the multi-option fuze and provides flash, bang and smoke; a steel body which approximates the shape of the 120mm HE service round; and an ignition cartridge and propelling charge which provide the propulsion requirement. This item is code A: It has been type classified and has been approved for service use. This round is produced from a performance specification.

**JUSTIFICATION:**

This is a training-unique item; not used in combat. Use of the M931 will reduce training costs and environmental impacts. The FY99 procurement supports annual peacetime training requirements and builds toward authorized depot level for training unique ammunition.

Type classification date: TC (STD) AUG96  
 Acquisition Manager: PM MORTARS



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |              | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |            |              | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM FULL RANGE<br>PRACTICE M931 (E25507) |            |              | Weapon System Type: |            |              | Date:<br>February 1998 |            |  |
|---|--------------|--|------------|--------------|--|------------|--------------|---------------------|------------|--------------|------------------------|------------|--|
| <b>Ammunition<br/>Cost Elements</b>               |              | <b>FY 96</b>   |            |              | <b>FY 97</b>   |            |              | <b>FY 98</b>        |            |              | <b>FY 99</b>           |            |  |
| ID<br>CD  | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty  | UnitCost   | TotalCost    | Qty                 | UnitCost   | TotalCost    | Qty                    | UnitCost   |  |
|   | \$000        | Each   | \$         | \$000        | Each   | \$         | \$000        | Each                | \$         | \$000        | Each                   | \$         |  |
| <b>AMMUNITION HARDWARE</b>                        |              |  |            |              |  |            |              |                     |            |              |                        |            |  |
| 1. Modified System Contract, M931                 | 10251        | 37176  | 276        | 32102        | 126500   | 254        | 8974         | 78052               | 115        | 11332        | 96522                  | 117        |  |
| 1a. LAP M931                                      |              |  |            |              |  |            | 8885         | 81174               | 109        | 11573        | 100383                 | 115        |  |
| 2. SHELL BODY                                     | 4134         | 38663  | 107        | 13314        | 131560   | 101        | 3138         | 81174               | 39         | 3966         | 100383                 | 40         |  |
| 3. FIN ASSEMBLY M34                               |              |  |            |              |  |            | 4250         | 320013              | 13         | 5366         | 395740                 | 14         |  |
| 4. PROP CHARGE M233                               |              |  |            |              |  |            | 2150         | 81174               | 26         | 2714         | 100383                 | 27         |  |
| 5. IGNITION CTG M102C                             |              |  |            |              |  |            | 1979         | 81174               | 24         | 2520         | 100383                 | 25         |  |
| 6. FUZE TRNG M781                                 |              |  |            |              |  |            |              |                     |            |              |                        |            |  |
| <b>SubTotal AMMO Hardware</b>                     | <b>14385</b> |  |            | <b>45416</b> |  |            | <b>29376</b> |                     |            | <b>37471</b> |                        |            |  |
| <b>Production Support Costs</b>                   |              |  |            |              |  |            |              |                     |            |              |                        |            |  |
| Production Engineering                            | 1073         |  |            | 1073         |  |            | 777          |                     |            | 786          |                        |            |  |
| Quality Assurance                                 | 315          |  |            | 386          |  |            | 148          |                     |            | 227          |                        |            |  |
| Acceptance Testing                                | 244          |  |            | 864          |  |            | 331          |                     |            | 425          |                        |            |  |
| Interim Transportation                            | 42           |  |            | 143          |  |            | 195          |                     |            | 305          |                        |            |  |
| PMO   |              |  |            |              |  |            |              |                     |            | 489          |                        |            |  |
| <b>SubTotal Prod. Support</b>                     | <b>1674</b>  |  |            | <b>2466</b>  |  |            | <b>1451</b>  |                     |            | <b>2232</b>  |                        |            |  |
| <b>COST - Nonrecurring</b>                        |              |  |            |              |  |            |              |                     |            |              |                        |            |  |
| 1. First Article                                  | 2185         |  |            |              |  |            |              |                     |            |              |                        |            |  |
| 2. Production Verification Test                   |              |  |            | 1330         |  |            | 877          |                     |            |              |                        |            |  |
| 3. Calibration Lot                                |              |  |            | 1695         |  |            |              |                     |            |              |                        |            |  |
| <b>SubTotal COST-Nonrecurring</b>                 | <b>2185</b>  |  |            | <b>3025</b>  |  |            | <b>877</b>   |                     |            |              |                        |            |  |
| <b>TOTAL</b>                                      | <b>18244</b> |  | <b>491</b> | <b>50907</b> |  | <b>402</b> | <b>31704</b> |                     | <b>406</b> | <b>39703</b> |                        | <b>411</b> |  |

| Exhibit P-5a, Budget Procurement History and Planning  |   |                          |                 |   |                        |          |              |                  |                  | Date:          |
|--|---|--------------------------|-----------------|---|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |   |                          |                 |   |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:  |   |                          |                 | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM FULL RANGE PRACTICE M9 (E25507) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                   | Contract Method and Type | Location of PCO | Award Date  | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. Modified System Contract, M931  |   |                          |                 |   |                        |          |              |                  |                  |                |
| FY 96  | Pocal Industries, Moscow, PA              | SS/FP                    | TACOM           | Mar-97  | Oct-98                 | 37176    | 276          | Yes              |                  |                |
| FY 97  | Pocal Industries, Moscow, PA              | OPT                      | TACOM           | Mar-97  | Jan-99                 | 126500   | 254          | Yes              |                  |                |
| 1a. LAP M931   |   |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                   | C/FP                     | TACOM           | May-98  | Jan-00                 | 78052    | 115          | Yes              |                  |                |
| FY 99  | Unknown                                   | OPT                      | TACOM           | Jan-99  | Jul-00                 | 96522    | 117          | Yes              |                  |                |
| 2. SHELL BODY  |   |                          |                 |   |                        |          |              |                  |                  |                |
| FY 96  | Chamberlain Mfg., Scranton, PA            | SS/FP                    | TACOM           | Aug-96  | Jun-97                 | 38663    | 107          | Yes              |                  |                |
| FY 97  | Chamberlain Mfg., Scranton, PA            | OPT                      | TACOM           | Mar-97  | Jan-98                 | 131560   | 101          | Yes              |                  |                |
| FY 98  | Chamberlain Mfg., Scranton, PA            | OPT                      | TACOM           | Jan-98  | Oct-98                 | 81174    | 109          | Yes              |                  |                |
| FY 99  | Chamberlain Mfg., Scranton, PA            | OPT                      | TACOM           | Jan-99  | Oct-99                 | 100383   | 115          | Yes              |                  |                |
| 3. FIN ASSEMBLY M34  |   |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Valentec Systems, Inc., Mt. Arlington, NJ | OPT                      | TACOM           | Jan-98  | May-98                 | 81174    | 39           | Yes              |                  |                |
| FY 99  | Valentec Systems, Inc., Mt. Arlington, NJ | OPT                      | TACOM           | Jan-99  | May-99                 | 100383   | 40           | Yes              |                  |                |
| 4. PROP CHARGE M233  |   |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                   | C/FP                     | TACOM           | Mar-98  | May-99                 | 320013   | 13           | Yes              |                  |                |
| FY 99  | Unknown                                   | OPT                      | TACOM           | Jan-99  | Sep-99                 | 395740   | 14           | Yes              |                  |                |
| 5. IGNITION CTG M1020  |   |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                   | OPT                      | TACOM           | Mar-98  | Feb-99                 | 81174    | 26           | Yes              |                  |                |
| FY 99  | Unknown                                   | OPT                      | TACOM           | Jan-99  | Dec-99                 | 100383   | 27           | Yes              |                  |                |
| <b>REMARKS:</b> FY96/97 initial production is a combined buy sole source to the development contractor.<br>The M931 LAP will be combined with the M934A1 LAP effort.<br>The LAP procurement will be limited to North American competition. |   |                          |                 |   |                        |          |              |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning                                    |                         |                          |                 |                  |                        |                 |              |   |                  | Date:          |  |
|--|-------------------------|--------------------------|-----------------|------------------|------------------------|-----------------|--------------|---|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |                         |                          |                 |                  | Weapon System Type:    |                 |              | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM FULL RANGE PRACTICE M9 (E25507) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location | Contract Method and Type | Location of PCO | Award Date       | Date of First Delivery | QTY Each        | Unit Cost \$ | Specs Avail Now?  | Date Revsn Avail | RFP Issue Date |  |
| 6. FUZE TRNG M781<br>FY98<br>FY 99   | Unknown<br>Unknown      | C/FP<br>OPT              | TACOM<br>TACOM  | May-98<br>Jan-99 | Feb-99<br>Oct-99       | 81174<br>100383 | 24<br>25     |   |                  |                |  |
| REMARKS:   |                         |                          |                 |                  |                        |                 |              |   |                  |                |  |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 120MM HE M934A1 W/MO FUZE (E25501)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         | 43      | 33      | 24      |         |         |         |             | 100        |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 0.0     | 38.0    | 29.1    | 22.2    | 0.0     | 0.0     | 0.0     | 0.0         | 89.3       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 0.0     | 38.0    | 29.1    | 22.2    | 0.0     | 0.0     | 0.0     | 0.0         | 89.3       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 0.0     | 38.0    | 29.1    | 22.2    | 0.0     | 0.0     | 0.0     | 0.0         | 89.3       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The round is used against personnel and materiel providing both fragmentation and blast effect. It consists of a multi-option fuze, tail assembly, and projectile body with a TNT or composition B explosive fill. The round uses the M734A1 multi-option fuze proximity setting to burst at a height over the target which is optimized for lethality. The round expands the total range 1000 meters and has a blast effect 1.5 times greater than the 4.2-in high explosive round it replaces. The M934A1 version incorporates the more reliable and countermeasure resistant M734A1 Multi-option fuze. This item is code A: it has been approved for service use.

**JUSTIFICATION:**

This procurement is part of the total package fielding effort for the 120mm mortar system. Procurement of the M934A1 supports building a war reserve inventory, which will replace the M934 as the preferred 120mm ammunition.

Type Classification Date: NDI - MAR90 limited rate production - urgent(LPU);  
 Enhanced Ammunition - M934 standard (STD) MAY92; M934A1 standard (STD) JUN96.  
 Acquisition Manager: PM MORTARS

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |      |          | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM HE M934A1<br>W/MO FUZE (E25501) |      |          | Weapon System Type: |        |            | Date:<br>February 1998 |        |            |
|---|--|--|------|----------|---|------|----------|---------------------|--------|------------|------------------------|--------|------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | <b>FY 96</b>   |      |          | <b>FY 97</b>  |      |          | <b>FY 98</b>        |        |            | <b>FY 99</b>           |        |            |
|   |  | TotalCost  | Qty  | UnitCost | TotalCost   | Qty  | UnitCost | TotalCost           | Qty    | UnitCost   | TotalCost              | Qty    | UnitCost   |
|   |  | \$000  | Each | \$       | \$000   | Each | \$       | \$000               | Each   | \$         | \$000                  | Each   | \$         |
| <b>AMMUNITION HARDWARE</b>                        |  |  |      |          |   |      |          |                     |        |            |                        |        |            |
| 1. LAP, M934A1                                    |  |  |      |          |   |      |          | 7669                | 42844  | 179        | 6013                   | 32773  | 183        |
| 2. SHELL BODY                                     |  |  |      |          |   |      |          | 5447                | 44558  | 122        | 4067                   | 34084  | 119        |
| 3. FIN ASSEMBLY M31                               |  |  |      |          |   |      |          | 1764                | 44558  | 40         | 1369                   | 34084  | 40         |
| 4. IGNITION CTG M102C                             |  |  |      |          |   |      |          | 1180                | 44558  | 26         | 919                    | 34084  | 27         |
| 5. PROP CHARGE M234                               |  |  |      |          |   |      |          | 2333                | 175660 | 13         | 1811                   | 134369 | 13         |
| 6. FUZE M734A1                                    |  |  |      |          |   |      |          | 13917               | 44558  | 312        | 9361                   | 34084  | 275        |
| 7. PA153 CONTAINER                                |  |  |      |          |   |      |          | 481                 | 44558  | 11         | 370                    | 34084  | 11         |
| 8. PA154 CONTAINER                                |  |  |      |          |   |      |          | 792                 | 22279  | 36         | 617                    | 17042  | 36         |
| <b>SubTotal AMMO Hardware</b>                     |  |  |      |          |   |      |          | <b>33583</b>        |        |            | <b>24527</b>           |        |            |
| <b>Production Support Costs</b>                   |  |  |      |          |   |      |          |                     |        |            |                        |        |            |
| Production Engineering                            |  |  |      |          |   |      |          | 1295                |        |            | 1279                   |        |            |
| Quality Assurance                                 |  |  |      |          |   |      |          | 304                 |        |            | 300                    |        |            |
| Acceptance Testing                                |  |  |      |          |   |      |          | 800                 |        |            | 787                    |        |            |
| Interim Transportation                            |  |  |      |          |   |      |          | 324                 |        |            | 319                    |        |            |
| <b>SubTotal Prod. Support</b>                     |  |  |      |          |   |      |          | <b>2723</b>         |        |            | <b>2685</b>            |        |            |
| <b>COST - Nonrecurring</b>                        |  |  |      |          |   |      |          |                     |        |            |                        |        |            |
| First Article Test                                |  |  |      |          |   |      |          | 1730                |        |            |                        |        |            |
| Calibration Lot                                   |  |  |      |          |   |      |          |                     |        |            | 1875                   |        |            |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |      |          |   |      |          | <b>1730</b>         |        |            | <b>1875</b>            |        |            |
| <b>TOTAL</b>                                      |  |  |      |          |   |      |          | <b>38036</b>        |        | <b>888</b> | <b>29087</b>           |        | <b>843</b> |

| Exhibit P-5a, Budget Procurement History and Planning  |  |                          |                 |   |                        |          |              |                  |                  | Date:          |
|--|--|--------------------------|-----------------|---|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |  |                          |                 |   |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:  |  |                          |                 | P-1 Line Item Nomenclature:                 |                        |          |              |                  |                  |                |
|  |  |                          |                 | CTG MORTAR 120MM HE M934 W/MO FUZE (E25501) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                  | Contract Method and Type | Location of PCO | Award Date                                  | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. LAP, M934A1   |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                  | C/FP                     | TACOM           | May-98                                      | Feb-99                 | 42844    | 179          | Yes              |                  |                |
| FY 99  | Unknown                                  | OPT                      | TACOM           | Mar-99                                      | Sep-00                 | 32773    | 183          | Yes              |                  |                |
| 2. SHELL BODY  |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Chamberlain Mfg., Scranton, PA           | OPT                      | TACOM           | Jan-98                                      | Jan-99                 | 44558    | 122          | Yes              |                  |                |
| FY 99  | Chamberlain Mfg., Scranton, PA           | OPT                      | TACOM           | Jan-99                                      | Jan-00                 | 34084    | 119          | Yes              |                  |                |
| 3. FIN ASSEMBLY M31  |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Valentec Systems Inc., Mt. Arlington, NJ | OPT                      | TACOM           | Jan-98                                      | May-98                 | 44558    | 40           | Yes              |                  |                |
| FY 99  | Valentec Systems Inc., Mt. Arlington, NJ | OPT                      | TACOM           | Jan-99                                      | May-99                 | 34084    | 40           | Yes              |                  |                |
| 4. IGNITION CTG M1020  |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                  | OPT                      | TACOM           | Mar-98                                      | Feb-99                 | 44558    | 26           | Yes              |                  | Jul-97         |
| FY 99  | Unknown                                  | OPT                      | TACOM           | Jan-99                                      | Dec-99                 | 34084    | 27           | Yes              |                  | Jul-97         |
| 5. PROP CHARGE M234  |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                  | C/FP                     | TACOM           | Mar-98                                      | Dec-98                 | 175660   | 13           | Yes              |                  |                |
| FY 99  | Unknown                                  | OPT                      | TACOM           | Jan-99                                      | Dec-99                 | 134369   | 13           | Yes              |                  |                |
| 6. FUZE M734A1   |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Unknown                                  | C/FP                     | TACOM           | May-98                                      | Jun-99                 | 44558    | 312          | Yes              |                  | Dec-97         |
| FY 99  | Unknown                                  | OPT                      | TACOM           | Jan-99                                      | Dec-99                 | 34084    | 275          | Yes              |                  | Dec-97         |
| 7. PA153 CONTAINER   |  |                          |                 |   |                        |          |              |                  |                  |                |
| FY 98  | Omega Container Inc., Arcadia, LA        | OPT                      | TACOM           | Jan-98                                      | Jul-98                 | 44558    | 11           | Yes              |                  |                |
| FY 99  | Unknown                                  | C/FP                     | TACOM           | Mar-99                                      | Oct-99                 | 34084    | 11           | Yes              |                  |                |
| <b>REMARKS:</b> 120mm components (M31 fin, M1020 ignition cartridge, M734A1 fuze, PA153 container and PA154 container) are procured on same contracts as for other 120mm mortar rounds. The LAP effort and M734A1 fuze procurements will be limited to North American competition. The M934A1 LAP effort will be combined with the M931 LAP on one contract. |  |                          |                 |   |                        |          |              |                  |                  |                |



| Exhibit P-5a, Budget Procurement History and Planning   |                                      |                          |                 |                  |                        |                |              |  |                  | Date:          |  |
|---|--------------------------------------|--------------------------|-----------------|------------------|------------------------|----------------|--------------|--|------------------|----------------|--|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |                                      |                          |                 |                  | Weapon System Type:    |                |              | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM HE M934 W/MO FUZE (E25501) |                  |                |  |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location              | Contract Method and Type | Location of PCO | Award Date       | Date of First Delivery | QTY Each       | Unit Cost \$ | Specs Avail Now?   | Date Revsn Avail | RFP Issue Date |  |
| 8. PA154 CONTAINER<br>FY 98<br>FY 99  | Brockway STD, Atlanta, GA<br>Unknown | OPT<br>C/FP              | TACOM<br>TACOM  | Jan-98<br>Mar-99 | Jun-98<br>Sep-99       | 22279<br>17042 | 36<br>36     | Yes<br>Yes   |                  |                |  |
| <b>REMARKS:</b> 120mm components (M31 fin, M1020 ignition cartridge, M734A1 fuze, PA153 container and PA154 container) are procured on same contracts as for other 120mm mortar rounds. |                                      |                          |                 |                  |                        |                |              |  |                  |                |  |



| Exhibit P-40, Budget Item Justification Sheet  |             |         |         |            |                                 |  |         | Date: February 1998 |         |         |             |            |
|--|-------------|---------|---------|------------|---------------------------------|--|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |            |                                 | P-1 Item Nomenclature:<br>CTG TANK 120MM TP-T M831/M831A1 (E73300) |         |                     |         |         |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:<br>A | Other Related Program Elements: |  |         |                     |         |         |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998                         | FY 1999  | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty   | 550         | 42      | 40      | 93         | 93                              | 105  | 86      | 85                  | 85      | 84      |             | 1263       |
| Gross Cost   | 499.7       | 29.6    | 29.1    | 54.5       | 60.6                            | 60.4   | 49.9    | 49.1                | 48.8    | 47.8    | 0.0         | 931.0      |
| Less PY Adv Proc   |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Plus CY Adv Proc   |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Net Proc (P-1)   | 499.7       | 29.6    | 29.1    | 54.5       | 60.6                            | 60.4   | 49.9    | 49.1                | 48.8    | 47.8    | 0.0         | 931.0      |
| Initial Spares   |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Total Proc Cost  | 499.7       | 29.6    | 29.1    | 54.5       | 60.6                            | 60.4   | 49.9    | 49.1                | 48.8    | 47.8    | 0.0         | 931.0      |
| Flyaway U/C  |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Wpn Sys Proc U/C   |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| <p><b>DESCRIPTION:</b></p> <p>The 120mm M831A1 Target Practice-Tracer (TP-T) is a target practice round that simulates the ballistics of the chemical energy service round (M830). This round is fired from the M256 120mm smooth bore cannon on the M1A1/M1A2 Abrams tank. The projectile is inert and is composed of a steel spike aluminum body, ring, stabilizer, nylon obturator, and tracer. The stabilizer spins the round in flight. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.</p> <p><b>JUSTIFICATION:</b></p> <p>This is a training unique item; not used in combat. Tank crews conduct live fire training with this round to meet and maintain gunnery proficiency. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals. The acquisition strategy for FY 95 - FY 98 was a sole source. The FY 1999 - 2003 is a new multi-year program,</p> <p><b>TYPE CLASSIFICATION DATE:</b></p> <p>1993</p> |             |         |         |            |                                 |  |         |                     |         |         |             |            |

| <b>Exhibit P-5, Weapon Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG TANK 120MM TP-T<br>M831/M831A1 (E73300) |              |       | Weapon System Type: |              |       | Date:<br>February 1998 |              |        |          |
|---|--|---|--------------|-------|--|--------------|-------|---------------------|--------------|-------|------------------------|--------------|--------|----------|
| <b>Ammunition Cost Elements</b>               |  | ID  | <b>FY 96</b> |       |  | <b>FY 97</b> |       |                     | <b>FY 98</b> |       |                        | <b>FY 99</b> |        |          |
|   |  | CD  | TotalCost    | Qty   | UnitCost   | TotalCost    | Qty   | UnitCost            | TotalCost    | Qty   | UnitCost               | TotalCost    | Qty    | UnitCost |
|   |  |   | \$000        | Each  | \$   | \$000        | Each  | \$                  | \$000        | Each  | \$                     | \$000        | Each   | \$       |
| <b>AMMUNITION HARDWARE</b>                    |  |   |              |       |  |              |       |                     |              |       |                        |              |        |          |
| Complete Round                                |  |   | 22822        | 40395 | 564.97   | 49061        | 92692 | 529.30              | 52325        | 92616 | 564.97                 | 57540        | 105000 | 548.00   |
| <b>SubTotal AMMO Hardware</b>                 |  |   | 22822        |       |  | 49061        |       |                     | 52325        |       |                        | 57540        |        |          |
| <b>Production Support Costs</b>               |  |   |              |       |  |              |       |                     |              |       |                        |              |        |          |
| Production Engineering                        |  |   | 707          |       |  |              |       |                     | 5348         |       |                        | 2110         |        |          |
| Quality Assurance                             |  |   | 32           |       |  | 39           |       |                     | 131          |       |                        | 736          |        |          |
| Acceptance Testing                            |  |   | 262          |       |  |              |       |                     | 602          |       |                        |              |        |          |
| Interim Transportation                        |  |   | 87           |       |  |              |       |                     | 377          |       |                        |              |        |          |
| Industrial Stock Support                      |  |   | 970          |       |  | 1            |       |                     | 1852         |       |                        |              |        |          |
| CAWCF Gain/Loss Surcharge                     |  |   | 4172         |       |  | 5401         |       |                     |              |       |                        |              |        |          |
| <b>SubTotal Prod. Support</b>                 |  |   | 6230         |       |  | 5441         |       |                     | 8310         |       |                        | 2846         |        |          |
| <b>TOTAL</b>                                  |  |   | 29052        |       | 719.21   | 54502        |       | 587.99              | 60635        |       | 654.69                 | 60386        |        | 575.10   |

| Exhibit P-5a, Budget Procurement History and Planning   |   |                          |                 |   |                        |          |              |                  |                  | Date:          |
|---|---|--------------------------|-----------------|---|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |   |                          |                 |   |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:   |   |                          |                 | P-1 Line Item Nomenclature:<br>CTG TANK 120MM TP-T M831/M831A1 (E73300) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                   | Contract Method and Type | Location of PCO | Award Date  | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Complete Round<br>FY 96   | Alliant Tech Sys, Inc<br>New Brighton, MN | CM-2/FP                  | IOC             | Jan-96  | Oct-96                 | 24695    | #494.85      |                  |                  |                |
| FY 96   | Olin Corp.<br>St. Petersburg, FL          | CM-2/FP                  | IOC             | Jan-96  | Nov-96                 | 15700    | #603.16      |                  |                  |                |
| FY 97   | Alliant Tech Sys, Inc<br>New Brighton, MN | CM-3/FP                  | IOC             | Nov-96  | Oct-97                 | 64562    | #509.41      | Yes              |                  | Oct-96         |
| FY 97   | Primex Tech, Inc<br>St. Petersburg, FL    | CM-3/FP                  | IOC             | Nov-96  | Nov-97                 | 28130    | #589.49      | Yes              |                  | Oct-96         |
| FY 98   | Alliant Tech Sys, Inc<br>New Brighton, MN | CM-4/FP                  | IOC             | Dec-97  | Oct-98                 | 47698    | #504.74      | Yes              |                  | Oct-97         |
| FY 98   | Primex Tech, Inc<br>St. Petersburg, FL    | CM-4/FP                  | IOC             | Dec-97  | Nov-98                 | 44918    | #596.11      | Yes              |                  | Oct-97         |
| FY 99   | TBS                                       | CM-5/FP                  | IOC             | Jan-99  | Oct-99                 | 105000   | 548.00       | Yes              |                  | Oct-98         |
| <b>REMARKS:</b> # FY 96 - FY 98, Actual Contract Price (Average of Basic and Options)<br>Multi-Year Procurement FY 95 - FY 98<br>FY 99 is the 1st year of the FY 99 - FY 03 Multi-Year.<br>TBS - To Be Selected |   |                          |                 |   |                        |          |              |                  |                  |                |





| Exhibit P-40, Budget Item Justification Sheet   |             |         |         |            |   |         |         |         |         | Date:<br>February 1998 |             |            |
|---|-------------|---------|---------|------------|---|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |            | P-1 Item Nomenclature:<br>CTG TANK 120MM TPCSDS-T M865 (E73400) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:  |             |         |         | Code:<br>A | Other Related Program Elements:                                 |         |         |         |         |                        |             |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998   | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty  | 1411        | 116     | 132     | 211        | 192   | 240     | 239     | 176     | 221     | 198                    |             | 3136       |
| Gross Cost  | 943.5       | 78.0    | 90.0    | 115.4      | 116.7   | 129.9   | 126.4   | 94.0    | 115.8   | 103.4                  | 0.0         | 1913.1     |
| Less PY Adv Proc  |             |         |         |            |   |         |         |         |         |                        |             |            |
| Plus CY Adv Proc  |             |         |         |            |   |         |         |         |         |                        |             |            |
| Net Proc (P-1)  | 943.5       | 78.0    | 90.0    | 115.4      | 116.7   | 129.9   | 126.4   | 94.0    | 115.8   | 103.4                  | 0.0         | 1913.1     |
| Initial Spares  |             |         |         |            |   |         |         |         |         |                        |             |            |
| Total Proc Cost   | 943.5       | 78.0    | 90.0    | 115.4      | 116.7   | 129.9   | 126.4   | 94.0    | 115.8   | 103.4                  | 0.0         | 1913.1     |
| Flyaway U/C   |             |         |         |            |   |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C  |             |         |         |            |   |         |         |         |         |                        |             |            |
| <p><b>DESCRIPTION:</b></p> <p>The 120mm M865 Target Practice Cone-Stabilized Discarding Sabot with Tracer (TPCSDS-T) is a target practice round that simulates the ballistics of the 120mm M829A2 Armor Piercing Fin-Stabilized Discarding Sabot with Tracer round. This round is fired from the M256 120mm cannon on the M1A1/M1A2 Abrams tank. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.</p> <p><b>JUSTIFICATION:</b></p> <p>This is a training unique item; not used in combat. FY 99 procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals. The requested ammunition is required to support annual tank proficiency training for 120mm-gunned tanks. Training with this round simulates the firing of the Army's most lethal armor-defeating kinetic energy round in support of Army readiness objectives. The acquisition strategy for FY 95 - FY 98 was a sole source. FY1999 is the first year of a five year multi-year program.</p> <p><b>TYPE CLASSIFICATION DATE:</b></p> <p>1984</p> |             |         |         |            |   |         |         |         |         |                        |             |            |



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |              |       | P-1 Line Item Nomenclature:<br>CTG TANK 120MM TPCSDS-T M865<br>(E73400) |               |       | Weapon System Type: |               |       | Date:<br>February 1998 |               |       |               |
|---|--|--|--------------|-------|---|---------------|-------|---------------------|---------------|-------|------------------------|---------------|-------|---------------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |       |   | <b>FY 97</b>  |       |                     | <b>FY 98</b>  |       |                        | <b>FY 99</b>  |       |               |
|   |  | CD   | TotalCost    | Qty   | UnitCost  | TotalCost     | Qty   | UnitCost            | TotalCost     | Qty   | UnitCost               | TotalCost     | Qty   | UnitCost      |
|   |  |  | \$000        | x1000 | \$  | \$000         | x1000 | \$                  | \$000         | x1000 | \$                     | \$000         | x1000 | \$            |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |       |   |               |       |                     |               |       |                        |               |       |               |
| Complete Round                                    |  |  | 69109        | 132   | 524.01  | 103420        | 211   | 490.92              | 100687        | 192   | 524.01                 | 125520        | 240   | 523.00        |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 69109        |       |   | 103420        |       |                     | 100687        |       |                        | 125520        |       |               |
| <b>Production Support Costs</b>                   |  |  |              |       |   |               |       |                     |               |       |                        |               |       |               |
| Production Engineering                            |  |  | 2142         |       |   |               |       |                     | 10290         |       |                        | 3573          |       |               |
| Quality Assurance                                 |  |  | 97           |       |   | 145           |       |                     | 252           |       |                        | 821           |       |               |
| Acceptance Testing                                |  |  | 795          |       |   |               |       |                     | 1158          |       |                        |               |       |               |
| Interim Transportation                            |  |  | 263          |       |   | 154           |       |                     | 725           |       |                        |               |       |               |
| Industrial Stock Support                          |  |  | 2936         |       |   |               |       |                     | 3564          |       |                        |               |       |               |
| CAWCF Gain/Loss Surcharge                         |  |  | 12633        |       |   | 11437         |       |                     |               |       |                        |               |       |               |
| <b>SubTotal Prod. Support</b>                     |  |  | 18866        |       |   | 11736         |       |                     | 15989         |       |                        | 4394          |       |               |
| <b>COST - Nonrecurring</b>                        |  |  |              |       |   |               |       |                     |               |       |                        |               |       |               |
| HATR Safety Modification                          |  |  | 2000         |       |   | 250           |       |                     |               |       |                        |               |       |               |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  | 2000         |       |   | 250           |       |                     |               |       |                        |               |       |               |
| <b>TOTAL</b>                                      |  |  | <b>89975</b> |       | <b>667.06</b>   | <b>115406</b> |       | <b>546.63</b>       | <b>116676</b> |       | <b>607.22</b>          | <b>129914</b> |       | <b>541.31</b> |

| Exhibit P-5a, Budget Procurement History and Planning   |   |                          |                 |  |                        |          |              |                  |                  | Date:          |
|---|---|--------------------------|-----------------|--|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |   |                          |                 |  |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:   |   |                          |                 | P-1 Line Item Nomenclature:<br>CTG TANK 120MM TPCSDS-T M865 (E73400) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                   | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Complete Round<br>FY 96   | Alliant Tech Sys, Inc<br>New Brighton, MN | CM-2/FP                  | IOC             | Jan-96   | Oct-96                 | 81839    | # 483.54     |                  |                  |                |
| FY 96   | Olin Corp.<br>St. Petersburg, FL          | CM-2/FP                  | IOC             | Jan-96   | Nov-96                 | 50045    | # 560.08     |                  |                  |                |
| FY 97   | Alliant Tech Sys, Inc<br>New Brighton, MN | CM-3/FP                  | IOC             | Nov-96   | Oct-97                 | 143908   | # 485.49     | Yes              |                  | Oct-96         |
| FY 97   | Primex Tech, Inc<br>St. Petersburg, FL    | CM-3/FP                  | IOC             | Nov-96   | Nov-97                 | 66757    | # 548.85     | Yes              |                  | Oct-96         |
| FY 98   | Alliant Tech Sys, Inc<br>New Brighton, MN | CM-4/FP                  | IOC             | Dec-97   | Oct-98                 | 114257   | #488.20      | Yes              |                  | Oct-97         |
| FY 98   | Primex Tech, Inc<br>St. Petersburg, FL    | CM-4/FP                  | IOC             | Dec-97   | Nov-98                 | 77890    | #558.72      | Yes              |                  | Oct-97         |
| FY 99   | TBS                                       | CM-5/FP                  | IOC             | Jan-99   | Oct-99                 | 240000   | 523.00       | Yes              |                  | Oct-98         |
| <b>REMARKS:</b> # FY 96 and FY 98, Actual Contract Price (Average of Basic and Options)<br>Multi-Year Procurement FY 95 - FY 98<br>FY 99 is the first year of the FY 99 - FY 03 Multi-Year.<br>TBS - To Be Selected |   |                          |                 |  |                        |          |              |                  |                  |                |





| <b>Exhibit P-40, Budget Item Justification Sheet</b>   |             |         |         |            |  |         |         |         |         | Date:<br>February 1998 |             |            |
|--|-------------|---------|---------|------------|--|---------|---------|---------|---------|------------------------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |            | P-1 Item Nomenclature:<br>MINE AT M87 (VOLCANO) (E72195) |         |         |         |         |                        |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:<br>A | Other Related Program Elements:                          |         |         |         |         |                        |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998  | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003                | To Complete | Total Prog |
| Proc Qty   | 145         | 15      | 10      | 4          | 5  |         |         |         |         |                        |             | 179        |
| Gross Cost   | 295.8       | 43.9    | 29.2    | 15.0       | 16.6   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 400.5      |
| Less PY Adv Proc   |             |         |         |            |  |         |         |         |         |                        |             |            |
| Plus CY Adv Proc   |             |         |         |            |  |         |         |         |         |                        |             |            |
| Net Proc (P-1)   | 295.8       | 43.9    | 29.2    | 15.0       | 16.6   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 400.5      |
| Initial Spares   |             |         |         |            |  |         |         |         |         |                        |             |            |
| Total Proc Cost  | 295.8       | 43.9    | 29.2    | 15.0       | 16.6   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0                    | 0.0         | 400.5      |
| Flyaway U/C  |             |         |         |            |  |         |         |         |         |                        |             |            |
| Wpn Sys Proc U/C   |             |         |         |            |  |         |         |         |         |                        |             |            |
| <p><b>DESCRIPTION:</b><br/> This canister will be loaded with six improved sensor anti-tank (AT) mines. This canister is designed for quick connect/disconnect to aid loading/unloading and is expendable after use. These mines will be deployed by the Volcano M139 Mine Dispenser to permit quick emplacement of a minefield (1000 meters by 100 meters) that will delay, disrupt and canalize enemy forces and restrict their use of critical routes or terrain. This system is critical for the United States Army to be able to conduct Full-Dimensional Operations. This item is Code A, approved for service use. This item has not transitioned to the SMCA and will be procured at actual cost.</p> <p><b>JUSTIFICATION:</b><br/> The Volcano system is a key component of the Army landmine program. This system will replace the use of hand emplaced conventional minefields, thereby reducing the exposure of personnel to hostile fire.</p> <p>The date for transition to the SMCA has not been determined.</p> <p>Type Classification Date - M87 Standard - January 1989<br/> M87A1 LRIP - March 1994: Standard - September 1994</p> <p>Acquisition Manager: Project Manager for Mines, Countermine and Demolitions (PM-MCD)</p> |             |         |         |            |  |         |         |         |         |                        |             |            |

| Exhibit P-5, Weapon<br>Ammo Cost Analysis                        |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |                    |              | P-1 Line Item Nomenclature:<br>MINE AT M87 (VOLCANO) (E72195) |                    |             | Weapon System Type: |                    |             | Date:<br>February 1998 |                    |             |                |
|--|--|--|--------------------|--------------|---|--------------------|-------------|---------------------|--------------------|-------------|------------------------|--------------------|-------------|----------------|
| Ammunition<br>Cost Elements                                      |  | ID<br>CD   | FY 96              |              |   | FY 97              |             |                     | FY 98              |             |                        | FY 99              |             |                |
|  |  |  | TotalCost<br>\$000 | Qty<br>Each  | UnitCost<br>\$  | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$      | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$         | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$ |
| HARDWARE   |  |  |                    |              |   |                    |             |                     |                    |             |                        |                    |             |                |
| LAP (Modified System Contract)<br>Alliant Techsystems, Edina, MN |  | A  | 26887              | 10000        | 2689  | 12432              | 4240        | 2932                |                    |             |                        |                    |             |                |
| LAP (M87A1)<br>Lone Star AAP, Texarkana, TX                      |  |  |                    |              |   |                    |             |                     | 4056               | 5000        | 811                    |                    |             |                |
| MSEP Electronic Lens<br>Alliant Techsystems, Edina, MN           |  |  |                    |              |   |                    |             |                     | 9450               | 31500       | 300                    |                    |             |                |
| Coil & Strap Assembly<br>S&K Inc, Ronan, MT                      |  |  | 867                | 8400         | 103   | 639                | 6188        | 103                 | 551                | 5250        | 105                    |                    |             |                |
| Metal Parts Sets<br>JTM Inc, Amarillo TX                         |  |  | 948                | 8755         | 108   | 147                | 1358        | 108                 | 578                | 5250        | 110                    |                    |             |                |
| AT S&A Assembly<br>Action Mfg, Philadelphia, PA                  |  |  |                    |              |   | 1285               | 42000       | 31                  | 995                | 32500       | 31                     |                    |             |                |
| Miscellaneous  |  |  | 64                 |              |   | 36                 |             |                     | 48                 |             |                        |                    |             |                |
| <b>SUBTOTAL</b>  |  |  | <b>28766</b>       |              |   | <b>14539</b>       |             |                     | <b>15678</b>       |             |                        |                    |             |                |
| PRODUCTION SUPPORT   |  |  |                    |              |   |                    |             |                     |                    |             |                        |                    |             |                |
| PRODUCTION ENGINEERING   |  |  | 250                |              |   | 349                |             |                     | 720                |             |                        |                    |             |                |
| QUALITY ASSURANCE  |  |  | 146                |              |   | 85                 |             |                     | 138                |             |                        |                    |             |                |
| LOT ACCEPTANCE TESTING   |  |  |                    |              |   |                    |             |                     | 82                 |             |                        |                    |             |                |
| <b>SUBTOTAL</b>  |  |  | <b>396</b>         |              |   | <b>434</b>         |             |                     | <b>940</b>         |             |                        |                    |             |                |
| <b>TOTAL</b>   |  |  | <b>29162</b>       | <b>10000</b> | <b>2916</b>   | <b>14973</b>       | <b>4240</b> | <b>3531</b>         | <b>16618</b>       | <b>5000</b> | <b>3324</b>            |                    |             |                |

| Exhibit P-5a, Budget Procurement History and Planning  |   |                          |                 |            |                        |          |              |                  |                  | Date:   |
|--|---|--------------------------|-----------------|------------|------------------------|----------|--------------|------------------|------------------|---|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |   |                          |                 |            |                        |          |              |                  |                  | February 1998   |
| Weapon System Type:  |   |                          |                 |            |                        |          |              |                  |                  | P-1 Line Item Nomenclature:<br>MINE AT M87 (VOLCANO) (E72195) |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                     | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date  |
| LAP (Modified System Contract)<br>FY 96  | Alliant Technologies, Columbia, MA          | Option                   | ARDEC           | Sep-96     | Jan-98                 | 10000    | 2689         | Yes              |                  |   |
| FY 97  | Alliant Technologies, Columbia, MA          | Option                   | ARDEC           | Feb-97     | Jun-98                 | 4240     | 2932         | Yes              |                  |   |
| LAP (M87A1)<br>FY 98   | Day&Zimmerman (Lone Star AAP, Texarkana, TX | SS/CPIF                  | IOC             | Apr-98     | Sep-99                 | 5000     | 811          | Yes              |                  |   |
| MSEP Electronic Lens<br>FY 98  | Alliant Technologies, Columbia, MA          | C/FP                     | ARDEC           | Jul-98     | May-99                 | 31500    | 300          | Yes              |                  |   |
| Coil & Strap Assembly<br>FY 96   | S&N Electronics Inc, Kona, MT               | Option                   | ARDEC           | May-96     | Mar-97                 | 8400     | 103          | Yes              |                  |   |
| FY 97  | S&N Electronics Inc, Kona, MT               | Option                   | ARDEC           | Feb-97     | Dec-97                 | 6188     | 103          | Yes              |                  |   |
| FY 98  | S&N Electronics Inc, Kona, MT               | Option                   | ARDEC           | Apr-98     | Feb-99                 | 5250     | 105          | Yes              |                  |   |
| Metal Parts Sets<br>FY 96  | JTM Inc, Amarillo, TX                       | SS/FP                    | ARDEC           | Sep-96     | Jun-97                 | 8755     | 108          | Yes              |                  |   |
| FY 97  | JTM Inc, Amarillo, TX                       | Option                   | ARDEC           | Feb-97     | Sep-97                 | 1358     | 108          | Yes              |                  |   |
| FY 98  | JTM Inc, Amarillo, TX                       | Option                   | ARDEC           | Apr-98     | Oct-98                 | 5250     | 110          | Yes              |                  |   |
| AT S&A Assembly<br>FY 97   | Action Mfg., Philadelphia, PA               | Option                   | IOC             | Jan-97     | May-97                 | 42000    | 31           | Yes              |                  |   |
| FY 98  | Action Mfg., Philadelphia, PA               | Option                   | IOC             | Apr-98     | Oct-98                 | 32500    | 31           | Yes              |                  |   |
| REMARKS: The Modified System Contract includes the anti-tank electronics, bore rider pin release mechanism, third party LAP contract and third party lot acceptance testing. |   |                          |                 |            |                        |          |              |                  |                  |   |





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         | 13      | 2       |         |         |         |         |         |             | 15         |
| Gross Cost       | 0.0         | 0.0     | 0.0     | 26.0    | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 28.9       |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 0.0     | 26.0    | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 28.9       |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 0.0     | 26.0    | 2.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0         | 28.9       |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The round is used to illuminate target areas during night operations. It consists of a two-piece body filled with illuminating flare, fuze, and tail assembly. It bursts over a target, producing bright illumination which is more intense and effective than the 4.2-in illumination round it replaces. This budget line also funds the XM983 Infrared Illumination Round. The round is range matched to the 120mm high explosive (HE) and smoke cartridges. This item is code B: It has not been type classified and has not been approved for service use.

**JUSTIFICATION:**

This procurement is part of the total package fielding effort for the 120mm mortar system. The FY97 procurement provides a calibration lot and builds war reserve inventory in accordance with the Army's procurement goals.

Type Classification Date: MAR 98 standard (STD)

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |              |      | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM ILLUM XM930<br>W/MTSQ FZ (E25503) |              |      | Weapon System Type: |              |      | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|------|---|--------------|------|---------------------|--------------|------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |      |   | <b>FY 97</b> |      |                     | <b>FY 98</b> |      |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty  | UnitCost  | TotalCost    | Qty  | UnitCost            | TotalCost    | Qty  | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each | \$  | \$000        | Each | \$                  | \$000        | Each | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 1. XM930/983, LAP                                 |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 2. SHELL BODY                                     |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 3. FIN ASSEMBLY M31                               |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 4. CANNISTER ASSY                                 |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 5. IR CANNISTER ASSY                              |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 6. IGN CTG M1020                                  |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 7. PROP CHG M234                                  |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 8. FUZE M776                                      |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 9. PA153 CONTAINER                                |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 10. PA154 CONTAINER                               |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| Production Engineering                            |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| Quality Assurance                                 |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| Acceptance Testing                                |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| Interim Transportation                            |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 1. Calibration Lot                                |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| 2. First Article/Initial Production Test          |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  |              |      |   |              |      |                     |              |      |                        |              |      |          |

| Exhibit P-5a, Budget Procurement History and Planning  |  |                          |                 |  |                        |          |              |                  |                  | Date:          |
|--|--|--------------------------|-----------------|--|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |  |                          |                 |  |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:  |  |                          |                 | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503) |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                  | Contract Method and Type | Location of PCO | Award Date   | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. XM930/983, LAP  |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Pine Bluff Arsenal, Pine Bluff, AR       | SS/CR                    | TACOM           | Apr-98   | Jan-00                 | 13222    | 329          |                  |                  |                |
| FY 98  | Pine Bluff Arsenal, Pine Bluff, AR       | SS/CR                    | TACOM           | Apr-98   | Apr-00                 | 1962     | 333          |                  |                  |                |
| 2. SHELL BODY  |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Chamberlain Mfg., Scranton, PA           | OPT                      | TACOM           | Apr-98   | Apr-99                 | 13751    | 263          |                  |                  |                |
| FY 98  | Chamberlain Mfg., Scranton, PA           | OPT                      | TACOM           | Apr-98   | Jun-99                 | 2040     | 226          |                  |                  |                |
| 3. FIN ASSEMBLY M31  |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Valentec Systems Inc., Mt. Arlington, NJ | OPT                      | TACOM           | Aug-97   | Jan-98                 | 13751    | 39           |                  |                  |                |
| FY 98  | Valentec Systems Inc., Mt. Arlington, NJ | OPT                      | TACOM           | Jan-98   | Jun-98                 | 2040     | 40           |                  |                  |                |
| 4. CANNISTER ASSY  |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Crane AAA, Crane, IN                     | SS/CR                    | TACOM           | Apr-98   | Jan-99                 | 6875     | 347          |                  |                  |                |
| FY 98  | Crane AAA, Crane, IN                     | SS/CR                    | TACOM           | Apr-98   | Mar-99                 | 1020     | 254          |                  |                  |                |
| 5. IR CANNISTER ASSY   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Crane AAA, Crane, IN                     | SS/CR                    | TACOM           | Apr-98   | Jan-99                 | 6875     | 305          |                  |                  |                |
| FY 98  | Crane AAA, Crane, IN                     | SS/CR                    | TACOM           | Apr-98   | Mar-99                 | 1020     | 312          |                  |                  |                |
| 6. IGN CTG M1020   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Unknown                                  | C/FP                     | TACOM           | Feb-98   | Jan-99                 | 13751    | 26           |                  |                  | Jul-97         |
| FY 98  | Unknown                                  | OPT                      | TACOM           | Feb-98   | Feb-99                 | 2040     | 26           |                  |                  |                |
| 7. PROP CHG M234   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Valentec Systems Inc., Mt. Arlington, NJ | C/FP                     | TACOM           | Sep-97   | Sep-98                 | 55004    | 13           |                  |                  |                |
| FY 98  | Unknown                                  | C/FP                     | TACOM           | Jan-98   | Jan-99                 | 8044     | 13           |                  |                  |                |
| 8. FUZE M776   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Diehl GMBH, Schramberg, GER              | SS/FP                    | TACOM           | Aug-97   | Jun-98                 | 13751    | 127          |                  |                  |                |
| FY 98  | Diehl GMBH, Schramberg, GER              | OPT                      | TACOM           | Apr-98   | Feb-99                 | 2040     | 130          |                  |                  |                |
| 9. PA153 CONTAINER   |  |                          |                 |  |                        |          |              |                  |                  |                |
| FY 97  | Omega Container Inc., Arcadia, LA        | OPT                      | TACOM           | Sep-97   | Apr-98                 | 13751    | 11           |                  |                  |                |
| FY 98  | Omega Container Inc., Arcadia, LA        | OPT                      | TACOM           | Jan-98   | Jul-98                 | 2040     | 11           |                  |                  |                |
| <b>REMARKS:</b> Pine Bluff Arsenal and Crane Army Ammunition Activity are government owned - government operated facilities. These activities are issued work orders, not contracts. 120mm mortar components (Shell bodies, M31 fin, M234 prop charge, M1020 ignition cartridge, PA153 container and PA154 container) are procured on same contracts as for other 120mm mortar rounds. Due to late TC of M930/M983, FY97 & FY98 programs will be executed as a single buy. |  |                          |                 |  |                        |          |              |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning  |  |                          |                 |                     |                        |  |              |                  |                  | Date:          |               |
|--|--|--------------------------|-----------------|---------------------|------------------------|--|--------------|------------------|------------------|----------------|---------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |  |                          |                 | Weapon System Type: |                        | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM ILLUM XM930 W/MTSQ FZ (E25503) |              |                  |                  |                | February 1998 |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                                | Contract Method and Type | Location of PCO | Award Date          | Date of First Delivery | QTY Each   | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |               |
| 10. PA154 CONTAINER<br>FY 97<br>FY 98  | Brockway STD, Atlanta, GA<br>Brockway STD, Atlanta, GA | OPT<br>OPT               | TACOM<br>TACOM  | Jul-97<br>Jan-98    | Nov-97<br>May-98       | 6875<br>1020   | 38<br>36     |                  |                  |                |               |
| <b>REMARKS:</b> Pine Bluff Arsenal and Crane Army Ammunition Activity are government owned - government operated facilities. These activities are issued work orders, not contracts. 120mm mortar components (Shell bodies, M31 fin, M234 prop charge, M1020 ignition cartridge, PA153 container and PA154 container) are procured on same contracts as for other 120mm mortar rounds. |  |                          |                 |                     |                        |  |              |                  |                  |                |               |



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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: SIMULATORS, ALL TYPES (E51200)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         |         |         |         |         |         |         |         |         |             |            |
| Gross Cost       | 193.4       | 9.4     | 3.3     | 2.8     | 4.5     | 4.7     | 4.1     | 7.9     | 6.9     | 8.4     | 0.0         | 245.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 193.4       | 9.4     | 3.3     | 2.8     | 4.5     | 4.7     | 4.1     | 7.9     | 6.9     | 8.4     | 0.0         | 245.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 193.4       | 9.4     | 3.3     | 2.8     | 4.5     | 4.7     | 4.1     | 7.9     | 6.9     | 8.4     | 0.0         | 245.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**  
 This budget line includes Simulators ALL TYPES.

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |    | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |       |          | P-1 Line Item Nomenclature:<br>SIMULATORS, ALL TYPES (E51200) |       |          | Weapon System Type: |       |          | Date:<br>February 1998 |       |          |
|---|----|--|-------|----------|---|-------|----------|---------------------|-------|----------|------------------------|-------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |    | <b>FY 96</b>   |       |          | <b>FY 97</b>  |       |          | <b>FY 98</b>        |       |          | <b>FY 99</b>           |       |          |
| ID  | CD | TotalCost  | Qty   | UnitCost | TotalCost   | Qty   | UnitCost | TotalCost           | Qty   | UnitCost | TotalCost              | Qty   | UnitCost |
|   |    | \$000  | x1000 | \$       | \$000   | x1000 | \$       | \$000               | x1000 | \$       | \$000                  | x1000 | \$       |
|   |    |  |       |          |   |       |          | 675                 | 45    | 15.17    |                        |       |          |
|   |    |  |       |          | 348   | 35    | 10.07    | 333                 | 39    | 8.54     | 476                    | 53    | 9.05     |
|   |    |  |       |          | 849   | 10    | 95.86    |                     |       |          | 1556                   | 19    | 84.16    |
|   |    |  |       |          |   |       |          | 307                 | 20    | 15.00    | 868                    | 60    | 14.58    |
|   |    | 2390   | 308   | 7.76     | 1349  | 256   | 5.28     | 2517                | 425   | 5.92     | 97                     |       |          |
|   |    | 954  | 233   | 4.10     | 221   | 69    | 3.20     | 639                 | 178   | 3.59     | 715                    | 231   | 3.10     |
|   |    |  |       |          |   |       |          |                     |       |          | 486                    | 250   |          |
|   |    |  |       |          |   |       |          |                     |       |          | 453                    | 318   |          |
| <b>TOTAL</b>                                      |    | 3344   |       |          | 2767  |       |          | 4471                |       |          | 4651                   |       |          |

| Exhibit P-40, Budget Item Justification Sheet   |             |         |         |            |                                 |  |         | Date: February 1998 |         |         |             |            |
|---|-------------|---------|---------|------------|---------------------------------|--|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |             |         |         |            |                                 | P-1 Item Nomenclature:<br>SIMULATOR PROJ GND BURST M115A2 (E49700) |         |                     |         |         |             |            |
| Program Elements for Code B Items:  |             |         |         | Code:<br>A | Other Related Program Elements: |  |         |                     |         |         |             |            |
|   | Prior Years | FY 1995 | FY 1996 | FY 1997    | FY 1998                         | FY 1999  | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty  | 9639        | 338     | 308     | 256        | 425                             |  | 327     | 500                 | 500     | 500     |             | 12793      |
| Gross Cost  | 49.2        | 2.5     | 2.4     | 1.3        | 2.5                             | 0.1  | 1.6     | 2.5                 | 2.5     | 2.6     | 0.0         | 67.2       |
| Less PY Adv Proc  |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Plus CY Adv Proc  |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Net Proc (P-1)  | 49.2        | 2.5     | 2.4     | 1.3        | 2.5                             | 0.1  | 1.6     | 2.5                 | 2.5     | 2.6     | 0.0         | 67.2       |
| Initial Spares  |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Total Proc Cost   | 49.2        | 2.5     | 2.4     | 1.3        | 2.5                             | 0.1  | 1.6     | 2.5                 | 2.5     | 2.6     | 0.0         | 67.2       |
| Flyaway U/C   |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| Wpn Sys Proc U/C  |             |         |         |            |                                 |  |         |                     |         |         |             |            |
| <p><b>DESCRIPTION:</b></p> <p>This item simulates battle noises and effects of shell in-flight and ground explosions. The body of the simulator consists of a cylindrical paper tube containing a photoflash and a whistle assembly. The M115A2 simulator is a hand-thrown device actuated by a pullcord igniter. A safety fuze provides a 6 to 10 second delay before igniting the whistle composition in the whistle assembly. The final burning is accomplished by ignition of the photoflash charge effecting flash and a loud report. Dimensions of the M115A1 Simulator: 7.13 inches x 2.33 inches; weight: 3 pounds. This simulator is packed 100 each per wooden box. This item is Code A, approved for service use. This item will be procured as actual cost beginning in FY 99.</p> <p><b>JUSTIFICATION:</b></p> <p>This is a training unique item; not used in combat. Procurement supports annual peacetime training and builds a depot level in accordance with the Army's procurement goals.</p> <p><b>TYPE CLASSIFICATION DATE:</b></p> <p>1960</p> |             |         |         |            |                                 |  |         |                     |         |         |             |            |



| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |              |        | P-1 Line Item Nomenclature:<br>SIMULATOR PROJ GND BURST<br>M115A2 (E49700) |              |        | Weapon System Type: |              |        | Date:<br>February 1998 |              |      |          |
|---|--|--|--------------|--------|--|--------------|--------|---------------------|--------------|--------|------------------------|--------------|------|----------|
| <b>Ammunition<br/>Cost Elements</b>               |  | ID   | <b>FY 96</b> |        |  | <b>FY 97</b> |        |                     | <b>FY 98</b> |        |                        | <b>FY 99</b> |      |          |
|   |  | CD   | TotalCost    | Qty    | UnitCost   | TotalCost    | Qty    | UnitCost            | TotalCost    | Qty    | UnitCost               | TotalCost    | Qty  | UnitCost |
|   |  |  | \$000        | Each   | \$   | \$000        | Each   | \$                  | \$000        | Each   | \$                     | \$000        | Each | \$       |
| <b>AMMUNITION HARDWARE</b>                        |  |  |              |        |  |              |        |                     |              |        |                        |              |      |          |
| Load, Assemble and Pack                           |  |  | 1877         | 308069 | 6.09   | 1144         | 255560 | 4.48                | 2172         | 425147 | 5.11                   |              |      |          |
| *Fuze Powder, Type I (LB)                         |  |  |              | 68     | 3.12   |              | 57     | 3.12                |              | 94     | 3.12                   |              |      |          |
| <b>SubTotal AMMO Hardware</b>                     |  |  | 1877         |        |  | 1144         |        |                     | 2172         |        |                        |              |      |          |
| <b>Production Support Costs</b>                   |  |  |              |        |  |              |        |                     |              |        |                        |              |      |          |
| Production Engineering                            |  |  | 58           |        |  | 46           |        |                     | 222          |        |                        | 87           |      |          |
| Quality Assurance                                 |  |  | 3            |        |  | 2            |        |                     | 5            |        |                        | 10           |      |          |
| Acceptance Testing                                |  |  | 22           |        |  | 12           |        |                     | 25           |        |                        |              |      |          |
| Interim Transportation                            |  |  | 7            |        |  | 11           |        |                     | 16           |        |                        |              |      |          |
| Industrial Stock Support                          |  |  | 80           |        |  |              |        |                     | 77           |        |                        |              |      |          |
| CAWCF Gain/Loss Surcharge                         |  |  | 343          |        |  | 134          |        |                     |              |        |                        |              |      |          |
| <b>SubTotal Prod. Support</b>                     |  |  | 513          |        |  | 205          |        |                     | 345          |        |                        | 97           |      |          |
| <b>COST - Nonrecurring</b>                        |  |  |              |        |  |              |        |                     |              |        |                        |              |      |          |
| *Government Furnished Material                    |  |  |              |        |  |              |        |                     |              |        |                        |              |      |          |
| <b>SubTotal COST-Nonrecurring</b>                 |  |  |              |        |  |              |        |                     |              |        |                        |              |      |          |
| <b>TOTAL</b>                                      |  |  | 2390         |        | 7.76   | 1349         |        | 5.28                | 2517         |        | 5.92                   | 97           |      |          |

| Exhibit P-5a, Budget Procurement History and Planning                                    |                            |                          |                 |            |  |          |              |                  |                  | Date:          |
|--|----------------------------|--------------------------|-----------------|------------|--|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |                            |                          |                 |            |  |          |              |                  |                  | February 1998  |
| Weapon System Type:  |                            |                          |                 |            | P-1 Line Item Nomenclature:              |          |              |                  |                  |                |
|  |                            |                          |                 |            | SIMULATOR PROJ GND BURST M115A2 (E49700) |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location    | Contract Method and Type | Location of PCO | Award Date | Date of First Delivery                   | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| Load, Assemble and Pack<br>FY 96   | Lance Ordnance<br>Mayo, FL | C/FP                     | IOC             | May-96     | Nov-96                                   | 308069   | 6.09         |                  |                  |                |
| FY 97  | Lance Ordnance<br>Mayo, FL | C/FP                     | IOC             | Feb-97     | Aug-97                                   | 255560   | 4.48         | Yes              |                  | Oct-96         |
| FY 98  | TBS                        | C/FP                     | IOC             | Mar-98     | Mar-99                                   | 425147   | 5.11         | Yes              |                  | Oct-97         |
| *Fuze Powder Type I<br>FY 96   | Stock Issue                | N/A                      | N/A             | N/A        | N/A                                      | 68       | N/A          | N/A              |                  | N/A            |
| FY 97  | Stock Issue                | N/A                      | N/A             | N/A        | N/A                                      | 57       | N/A          | N/A              |                  | N/A            |
| FY 98  | Stock Issue                | N/A                      | N/A             | N/A        | N/A                                      | 94       | N/A          | N/A              |                  | N/A            |

REMARKS: TBS - To be Selected  
\*Government Furnished Material





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

Date: February 1998

Appropriation / Budget Activity/Serial No: PROCUREMENT OF AMMUNITION / 1 / Ammunition  
 P-1 Item Nomenclature: CTG MORTAR 120MM SMOKE M929 W/MO FUZE (E25504)

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

|                  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998 | FY 1999 | FY 2000 | FY 2001 | FY 2002 | FY 2003 | To Complete | Total Prog |
|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|------------|
| Proc Qty         |             |         | 57      | 27      |         |         | 21      | 23      | 23      | 19      |             | 170        |
| Gross Cost       | 0.0         | 0.0     | 65.8    | 34.9    | 0.0     | 0.0     | 25.4    | 25.9    | 26.6    | 23.7    | 0.0         | 202.4      |
| Less PY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Plus CY Adv Proc |             |         |         |         |         |         |         |         |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 65.8    | 34.9    | 0.0     | 0.0     | 25.4    | 25.9    | 26.6    | 23.7    | 0.0         | 202.4      |
| Initial Spares   |             |         |         |         |         |         |         |         |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 65.8    | 34.9    | 0.0     | 0.0     | 25.4    | 25.9    | 26.6    | 23.7    | 0.0         | 202.4      |
| Flyaway U/C      |             |         |         |         |         |         |         |         |         |         |             |            |
| Wpn Sys Proc U/C |             |         |         |         |         |         |         |         |         |         |             |            |

**DESCRIPTION:**

The round is used to provide smoke, with some incendiary effect, for various screening uses. It consists of a body with smoke composition filler, fuze, and tail assembly. It bursts over or on a target, producing dense smoke which is 100 percent greater than the 4.2-in smoke round it replaces. The round is range matched to the 120mm high explosive (HE) and illuminating cartridges. This cartridge uses the advanced M734A1 Multi-option fuze, which has greatly improved height-burst and ECM capabilities. This item is code A: it has been type classified and approved for service use.

**JUSTIFICATION:**

This procurement is part of the total package fielding effort for the 120mm mortar system. FY97 procurement builds war reserve inventory and supports annual peacetime training requirements in accordance with the Army's procurement goals.

Type Classification Date: NDI - MAR 90 limited procurement - urgent(LPU);  
 Enhanced Ammunition - XM929, limited rate production (LRP) MAY 92; M929, standard (STD) JUN 96.  
 Acquisition Manager: PM MORTARS

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b> |              | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 /<br>Ammunition |             |              | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM SMOKE M929<br>W/MO FUZE (E25504) |             |           | Weapon System Type: |          |           | Date:<br>February 1998 |          |  |
|---|--------------|--|-------------|--------------|--|-------------|-----------|---------------------|----------|-----------|------------------------|----------|--|
| <b>Ammunition<br/>Cost Elements</b>               |              | <b>FY 96</b>   |             |              | <b>FY 97</b>   |             |           | <b>FY 98</b>        |          |           | <b>FY 99</b>           |          |  |
| ID<br>CD  | TotalCost    | Qty  | UnitCost    | TotalCost    | Qty  | UnitCost    | TotalCost | Qty                 | UnitCost | TotalCost | Qty                    | UnitCost |  |
|   | \$000        | Each   | \$          | \$000        | Each   | \$          | \$000     | Each                | \$       | \$000     | Each                   | \$       |  |
| <b>AMMUNITION HARDWARE</b>                        |              |  |             |              |  |             |           |                     |          |           |                        |          |  |
|   | 17623        | 56625  | 311         | 8745         | 27499  | 318         |           |                     |          |           |                        |          |  |
| 1. LAP, M929                                      |              |  |             |              |  |             |           |                     |          |           |                        |          |  |
| 2. SHELL BODY                                     | 10159        | 58890  | 173         | 5436         | 28599  | 190         |           |                     |          |           |                        |          |  |
| 3. IGN CTG M981                                   | 1492         | 58890  | 25          |              |  |             |           |                     |          |           |                        |          |  |
| 3a. IGN CTG M1020                                 |              |  |             | 740          | 28599  | 26          |           |                     |          |           |                        |          |  |
| 4. FIN ASSEMBLY M31                               | 2309         | 58890  | 39          | 1107         | 28599  | 39          |           |                     |          |           |                        |          |  |
| 5. PROP CHG M230                                  | 2951         | 232163   | 13          |              |  |             |           |                     |          |           |                        |          |  |
| 5a. PROP CHG M234                                 |              |  |             | 1463         | 112746   | 13          |           |                     |          |           |                        |          |  |
| 6. FUZE M734A1                                    | 23544        | 58890  | 400         | 9761         | 28599  | 341         |           |                     |          |           |                        |          |  |
| 7. PA153 CONTAINER                                | 626          | 58890  | 11          | 308          | 28599  | 11          |           |                     |          |           |                        |          |  |
| 8. PA154 CONTAINER                                | 1018         | 29445  | 35          | 540          | 14299  | 38          |           |                     |          |           |                        |          |  |
| ROYALTY 3% to General Dynamics                    | 507          |  |             | 262          |  |             |           |                     |          |           |                        |          |  |
| <b>SubTotal AMMO Hardware</b>                     | <b>60229</b> |  |             | <b>28362</b> |  |             |           |                     |          |           |                        |          |  |
| <b>Production Support Costs</b>                   |              |  |             |              |  |             |           |                     |          |           |                        |          |  |
| Production Engineering                            | 1225         |  |             | 2525         |  |             |           |                     |          |           |                        |          |  |
| Quality Assurance                                 | 209          |  |             | 474          |  |             |           |                     |          |           |                        |          |  |
| Acceptance Testing                                | 647          |  |             | 652          |  |             |           |                     |          |           |                        |          |  |
| Interim Transportation                            | 304          |  |             | 360          |  |             |           |                     |          |           |                        |          |  |
| <b>SubTotal Prod. Support</b>                     | <b>2385</b>  |  |             | <b>4011</b>  |  |             |           |                     |          |           |                        |          |  |
| <b>COST - Nonrecurring</b>                        |              |  |             |              |  |             |           |                     |          |           |                        |          |  |
| 1. M734A1 Materiel Change                         | 2102         |  |             |              |  |             |           |                     |          |           |                        |          |  |
| 2. PVT  | 1096         |  |             | 2563         |  |             |           |                     |          |           |                        |          |  |
| <b>SubTotal COST-Nonrecurring</b>                 | <b>3198</b>  |  |             | <b>2563</b>  |  |             |           |                     |          |           |                        |          |  |
| <b>TOTAL</b>                                      | <b>65812</b> |  | <b>1162</b> | <b>34936</b> |  | <b>1270</b> |           |                     |          |           |                        |          |  |

| Exhibit P-5a, Budget Procurement History and Planning   |  |                          |   |            |                        |          |              |                  |                  | Date:          |
|---|--|--------------------------|---|------------|------------------------|----------|--------------|------------------|------------------|----------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |  |                          |   |            |                        |          |              |                  |                  | February 1998  |
| Weapon System Type:   |  |                          | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM SMOKE M929 W/MO FUZE (E25504) |            |                        |          |              |                  |                  |                |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location                  | Contract Method and Type | Location of PCO   | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |
| 1. LAP, M929  |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 96   | Pine Bluff Arsenal Pine Bluff, AR        | SS/CR                    | TACOM   | Aug-96     | Sep-98                 | 56625    | 311          | YES              |                  |                |
| FY 97   | Pine Bluff Arsenal Pine Bluff, AR        | SS/FP                    | TACOM   | Mar-97     | Mar-99                 | 27499    | 318          | YES              |                  |                |
| 2. SHELL BODY   |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 96   | Chamberlain Mfg. Scranton, PA            | SS/FP                    | TACOM   | Aug-96     | Jun-97                 | 58890    | 173          | YES              |                  |                |
| FY 97   | Chamberlain Mfg. Scranton, PA            | OPT                      | TACOM   | Mar-97     | Jan-98                 | 28599    | 190          |                  |                  |                |
| 3. IGN CTG M981   |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 96   | General Dynamics Milan, TN               | C/FP                     | TACOM   | Sep-96     | Aug-97                 | 58890    | 25           | YES              |                  |                |
| 3a. IGN CTG M1020   |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 97   | Unknown                                  | C/FP                     | TACOM   | Feb-98     | Jan-99                 | 28599    | 26           | YES              |                  | Jul-97         |
| 4. FIN ASSEMBLY M31   |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 96   | Valentec Systems, Inc. Mt. Arlington, NJ | C/FP                     | TACOM   | Sep-96     | Jul-97                 | 58890    | 39           | YES              |                  |                |
| FY 97   | Valentec Systems, Inc. Mt. Arlington, NJ | OPT                      | TACOM   | Apr-97     | Sep-97                 | 28599    | 39           | YES              |                  |                |
| 5. PROP CHG M230  |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 96   | Valentec Systems, Inc. Mt. Arlington, NJ | C/FP                     | TACOM   | Sep-97     | Jun-98                 | 232163   | 13           | YES              |                  |                |
| 5a. PROP CHG M234   |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 97   | Valentec Systems, Inc. Mt. Arlington, NJ | C/FP                     | TACOM   | Sep-97     | Dec-98                 | 112746   | 13           | YES              |                  |                |
| 6. FUZE M734A1  |  |                          |   |            |                        |          |              |                  |                  |                |
| FY 96   | KDI Cincinnati,OH                        | SS/CPIF                  | TACOM   | Apr-96     | Feb-98                 | 9050     | 447          | YES              |                  |                |
| FY 96   | KDI Cincinnati,OH                        | SS/FP                    | TACOM   | Sep-96     | May-98                 | 49840    | 324          | YES              |                  |                |
| FY 97   | KDI Cincinnati,OH                        | OPT                      | TACOM   | Mar-97     | Oct-98                 | 28599    | 341          | YES              |                  |                |
| <b>REMARKS:</b> 120mm mortar components (Shell bodies, M1020 ignition cartridge, M31 fin, M234 prop charge, PA153 container and PA154 container) are procured on same contracts as for other 120mm mortar rounds. |  |                          |   |            |                        |          |              |                  |                  |                |

| Exhibit P-5a, Budget Procurement History and Planning   |  |                          |                 |                     |                        |   |              |                  |                  | Date:          |               |
|---|--|--------------------------|-----------------|---------------------|------------------------|---|--------------|------------------|------------------|----------------|---------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition  |  |                          |                 | Weapon System Type: |                        | P-1 Line Item Nomenclature:<br>CTG MORTAR 120MM SMOKE M929 W/MO FUZE (E25504) |              |                  |                  |                | February 1998 |
| WBS Cost Elements:<br>Fiscal Years  | Contractor and Location  | Contract Method and Type | Location of PCO | Award Date          | Date of First Delivery | QTY Each  | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date |               |
| 7. PA153 CONTAINER<br>FY 96<br>FY 97  | Omega Container Inc. Arcadia, LA<br>Omega Container Inc. Arcadia, LA | C/FP<br>OPT              | TACOM<br>TACOM  | Sep-96<br>Sep-97    | Dec-97<br>Apr-98       | 58890<br>28599  | 11<br>11     |                  |                  |                |               |
| 8. PA154 CONTAINER<br>FY 96<br>FY 97  | Brockway STD Atlanta, GA<br>Brockway STD Atlanta, GA                 | C/FP<br>OPT              | TACOM<br>TACOM  | Sep-96<br>Mar-97    | Mar-97<br>Sep-97       | 29445<br>14299  | 35<br>38     |                  |                  |                |               |
| <b>REMARKS:</b> 120mm mortar components (Shell bodies, M1020 ignition cartridge, M31 fin, M234 prop charge, PA153 container and PA154 container) are procured on same contracts as for other 120mm mortar rounds. |  |                          |                 |                     |                        |   |              |                  |                  |                |               |





| Exhibit P-40, Budget Item Justification Sheet  |             |         |         |         |                                 |  |         | Date: February 1998 |         |         |             |            |
|--|-------------|---------|---------|---------|---------------------------------|--|---------|---------------------|---------|---------|-------------|------------|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition   |             |         |         |         |                                 | P-1 Item Nomenclature:<br>WIDE AREA MUNITIONS (E78100) |         |                     |         |         |             |            |
| Program Elements for Code B Items:   |             |         |         | Code:   | Other Related Program Elements: |  |         |                     |         |         |             |            |
|  | Prior Years | FY 1995 | FY 1996 | FY 1997 | FY 1998                         | FY 1999  | FY 2000 | FY 2001             | FY 2002 | FY 2003 | To Complete | Total Prog |
| Proc Qty   |             |         | 106     | 70      | 74                              | 80   | 330     | 310                 | 1070    | 1125    |             | 3165       |
| Gross Cost   | 0.0         | 0.0     | 14.6    | 10.0    | 15.0                            | 9.6  | 24.5    | 23.7                | 58.4    | 58.0    | 0.0         | 213.7      |
| Less PY Adv Proc   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Plus CY Adv Proc   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Net Proc (P-1)   | 0.0         | 0.0     | 14.6    | 10.0    | 15.0                            | 9.6  | 24.5    | 23.7                | 58.4    | 58.0    | 0.0         | 213.7      |
| Initial Spares   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Total Proc Cost  | 0.0         | 0.0     | 14.6    | 10.0    | 15.0                            | 9.6  | 24.5    | 23.7                | 58.4    | 58.0    | 0.0         | 213.7      |
| Flyaway U/C  |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| Wpn Sys Proc U/C   |             |         |         |         |                                 |  |         |                     |         |         |             |            |
| <p><b>DESCRIPTION:</b><br/> The M93 Wide Area Munition is a first generation smart munition. It weighs 35 pounds and can be transported by a single soldier. It has the capability to recognize armor and heavy truck targets and to autonomously aim and launch its submunition to an effective radius of 100 meters. The M93 is designed for command control of the Arm/Destruct functions. This item has not transitioned to the SMCA and will be procured at actual cost.</p> <p><b>JUSTIFICATION:</b><br/> The M93 Wide Area Munition supports high mobility/offensive operations. Its design for flexible/rapid deployment combined with cost effective logistics and a self covering minefield capability provides increased performance and lethality over current mines in inventory. The FY1999 procurement is required to build war reserve inventory in support of Department of Defense guidance. The date for transition to the SMCA has not been determined.</p> <p>Type Classification Date: June 1996-Low Rate Initial Production (LRIP)<br/> Type Classification Date: June 1998-Standard<br/> Acquisition Manager: Project Manager for Mines, Countermine and Demolition (PM-MCD)</p> |             |         |         |         |                                 |  |         |                     |         |         |             |            |

| <b>Exhibit P-5, Weapon<br/>Ammo Cost Analysis</b>           |  | Appropriation/ Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1<br>/ Ammunition |                    |             | P-1 Line Item Nomenclature:<br>WIDE AREA MUNITIONS (E78100) |                    |             | Weapon System Type: |                    |             | Date:<br>February 1998 |                    |             |                |
|---|--|--|--------------------|-------------|---|--------------------|-------------|---------------------|--------------------|-------------|------------------------|--------------------|-------------|----------------|
| <b>Ammunition<br/>Cost Elements</b>                         |  | ID<br>CD   | <b>FY 96</b>       |             |   | <b>FY 97</b>       |             |                     | <b>FY 98</b>       |             |                        | <b>FY 99</b>       |             |                |
|   |  |  | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$  | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$      | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$         | TotalCost<br>\$000 | Qty<br>Each | UnitCost<br>\$ |
| AMMUNITION HARDWARE   |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| 1. Load, Assemble, and Pack -Wide Area<br>Munition-Complete |  |  | 14173              | 106         | 133708  | 8932               | 70          | 127600              | 8736               | 74          | 118054                 | 9147               | 80          | 114338         |
| <b>SUBTOTAL</b>   |  |  | <b>14173</b>       |             |   | <b>8932</b>        |             |                     | <b>8736</b>        |             |                        | <b>9147</b>        |             |                |
| Production Support Costs                                    |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| Production Engineering                                      |  |  | 330                |             |   | 510                |             |                     | 650                |             |                        | 410                |             |                |
| Quality Assurance   |  |  | 78                 |             |   | 68                 |             |                     | 350                |             |                        | 68                 |             |                |
| OGA Support   |  |  |                    |             |   | 73                 |             |                     | 500                |             |                        |                    |             |                |
| <b>SUBTOTAL</b>   |  |  | <b>408</b>         |             |   | <b>651</b>         |             |                     | <b>1500</b>        |             |                        | <b>478</b>         |             |                |
| COST - Nonrecurring   |  |  |                    |             |   |                    |             |                     |                    |             |                        |                    |             |                |
| Producability EP  |  |  |                    |             |   |                    |             |                     | 2780               |             |                        |                    |             |                |
| Production Qualification Test                               |  |  |                    |             |   |                    |             |                     | 1569               |             |                        |                    |             |                |
| Contractor Eng Support                                      |  |  |                    |             |   | 399                |             |                     | 395                |             |                        |                    |             |                |
| <b>SUBTOTAL</b>   |  |  |                    |             |   | <b>399</b>         |             |                     | <b>4744</b>        |             |                        |                    |             |                |
| <b>TOTAL</b>  |  |  | <b>14581</b>       | <b>106</b>  | <b>137557</b>   | <b>9982</b>        | <b>70</b>   | <b>142600</b>       | <b>14980</b>       | <b>74</b>   | <b>202432</b>          | <b>9625</b>        | <b>80</b>   | <b>120313</b>  |

| Exhibit P-5a, Budget Procurement History and Planning                                    |   |                          |                       |            |                        |          |              |                  |                  | Date:   |
|--|---|--------------------------|-----------------------|------------|------------------------|----------|--------------|------------------|------------------|---|
| Appropriation / Budget Activity/Serial No:<br>PROCUREMENT OF AMMUNITION / 1 / Ammunition |   |                          |                       |            |                        |          |              |                  |                  | February 1998   |
| Weapon System Type:  |   |                          |                       |            |                        |          |              |                  |                  | P-1 Line Item Nomenclature:<br>WIDE AREA MUNITIONS (E78100) |
| WBS Cost Elements:<br>Fiscal Years   | Contractor and Location                   | Contract Method and Type | Location of PCO       | Award Date | Date of First Delivery | QTY Each | Unit Cost \$ | Specs Avail Now? | Date Revsn Avail | RFP Issue Date  |
| 1. LAP -Wide Area Munition - Complete<br>FY 96   | Textron Defense Systems<br>Wilmington, MA | SS/FPIF                  | Picatinny Arsenal, NJ | Jun-96     | Mar-99                 | 106      | 133708       | Yes              |                  |   |
| FY 97  | Textron Defense Systems<br>Wilmington, MA | Option                   | Picatinny Arsenal, NJ | Jul-97     | Aug-99                 | 70       | 127600       | Yes              |                  |   |
| FY98   | Textron Defense Systems<br>Wilmington, MA | Option                   | Picatinny Arsenal, NJ | Dec-97     | Jan-00                 | 74       | 118054       | Yes              |                  |   |
| FY99   | Textron Defense Systems<br>Wilmington, MA | Option                   | Picatinny Arsenal, NJ | Nov-98     | Dec-00                 | 80       | 114338       | Yes              |                  |   |
| REMARKS:   |   |                          |                       |            |                        |          |              |                  |                  |   |



